



PHD

## The Implications of Smoke-Free Legislation for NHS Stop Smoking Services

Hackshaw, Lucy

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# **The Implications of Smoke-free Legislation for National Health Service Stop Smoking Services**

**Lucy Elizabeth Hackshaw**

A thesis submitted for the degree of Doctor of Philosophy

University of Bath

Department of Social and Policy Sciences

July 2010

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# **Abstract**

## **Background**

Although smoking prevalence in the UK has dropped considerably in recent decades, around one in five adults continue to smoke and prevalence rates are considerably higher in more disadvantaged groups. Smoking remains the single largest preventable cause of death, accounting for over 80,000 deaths in England in 2008. One in two smokers who do not quit will eventually die prematurely from a smoking related disease. Smoking not only puts smokers at risk but also those around them due to exposure to second hand smoke (SHS). SHS is carcinogenic to humans and contains a number of toxins. Scientific evidence accumulated over a number of years has shown that exposure to SHS causes death, disease and disability. In order to reduce the risks associated with SHS exposure, the 2006 Health Act prohibited smoking in all enclosed public places and workplaces in England. This smoke-free legislation, implemented in on July 1<sup>st</sup> 2007, was primarily intended to protect the public and workers from SHS. However, research in other countries has shown that smoke-free legislation can also influence smoking behaviour. It was therefore anticipated that the introduction of smoke-free could encourage more smokers to try and quit, and that in turn some of these might access England's free at the point of use cessation services – National Health Service (NHS) stop smoking services (SSSs).

This research aimed to explore the implications of the smoke-free legislation in England for NHS SSSs. It explored the capacity of SSSs to respond to any change in service uptake that resulted from the new legislation, to understand the impact of the legislation on smoking behaviour, and to highlight implications for policy and practice.

## **Methods**

Five inter-related pieces of research were conducted. Two national surveys of English SSS co-ordinators were carried out pre (n=132, 77 %) and post (n=86, 57 %) legislation. These explored the structure and function of the services, their funding and staffing, service delivery and training, preparation for smoke-free and ability to cope with any increase in demand. Comparative analysis of the two surveys was conducted. In-depth semi-structured interviews with 14 service staff and 17 clients allowed for the services and smoke-free legislation to be examined from these two key perspectives. Staff interviews explored career paths, training and the provision of smoking cessation support, whilst clients discussed the experience of attending the service and their smoking behaviour, as well as attitudes towards and experiences of smoke-free for both groups. Finally, data from 10,560 interviews, resulting from collaborative research with colleagues at University College London (UCL), explored intentions to quit smoking and quit attempts in response to smoke-free.

## Findings

Key findings and conclusions are grouped into four main headings: stop smoking structure and development; SSS response to smoke-free; relationships between smoke-free legislation and smoking cessation; and smoke-free and the smoker.

Findings on service structure and development highlighted considerable variation in relation to service management and staffing. A shift in service delivery methods (from group-based treatment to one to one interventions) was noted compared with previous research. Services were also increasingly aiming to reach and treat disadvantaged groups. Staff were committed to their role in helping people stop smoking but pointed to a lack of training and promotion opportunities, that pose challenges for the future development of services. In relation to smoke-free legislation, most services actively prepared for the introduction of the new law and almost all anticipated that their client numbers would increase as a result. Comparisons between the pre and post legislation surveys showed that more clients did access the services, although this increase was smaller than anticipated. Few services received additional funding to cope with higher client numbers.

Analysis of a large survey dataset of smokers in England showed that a significantly higher percentage of smokers reported making a quit attempt in July and August 2007 compared with the same period the following year. This increase in quit attempts coincided with the implementation of the legislation and was equivalent to over 300,000 smokers trying to quit in response to the introduction of smoke-free. This increase in quit attempts was not, however, sustained beyond the initial period following smoke-free and important questions remain about the longer term impact of the law on smoking rates in England. Qualitative interviews with smokers who were trying to make a quit attempt with the support of the SSS provide further information about how the legislation affected smoking behaviour and attitudes. There were initially mixed attitudes towards the new law before it was introduced but following the legislation most smokers were positive about the change, a finding that is reflected in other recent research in England. Smokers did, however, demonstrate feelings of cognitive dissonance which resulted in their changing attitudes. Some reported a change in cigarette consumption and others did quit.

Recommendations for policy and practice emerge from the research. These include the importance of early and substantial preparation for smoke-free, maximising the potential for more smokers to quit during implementation of the policy, investment in SSSs to secure their future and maintaining and further developing the relationship between available support to help smokers quit and other wider tobacco control policies.

## **Abbreviations**

A Level	Advanced level
ANOVA	Analysis of variance
ASH	Action on Smoking and Health
BBFC	British Board of Film Classification
BHF	British Heart Foundation
BMA	British Medical Association
BME	Black and minority ethnic
BMRB	British Market Research Bureau
CI	95% confidence intervals
CO	Carbon monoxide
COPD	Chronic obstructive pulmonary disease
CRUK	Cancer research UK
FCTC	Framework Convention on Tobacco Control
FTND	Fagerstrom Test for Nicotine Dependence
GCSE	General Certificate of Secondary Education
GEE	General estimating equations
GNVQ	General National Vocational Qualification
GP	General Practitioner
HAZ	Health Action Zones
HCP	Health care professional
HDA	Health Development Agency
IARC	International Agency for Research on Cancer
IC	Information Centre
IRAS	Integrated Research Application System



ITC	International Tobacco Control
ITC project	International Tobacco Control Policy Evaluation Project
NARS	Nicotine assisted reduction to stop
NCSCCT	NHS Centre for Smoking Cessation and Training
NEPHO	North East Public Health Observatory
NHS	National Health Service
NICE	National Institute for Health and Clinical Excellence
NRT	Nicotine replacement therapy
ONS	Office for National Statistics
PCT	Primary Care Trust
R&D	Research and Development
RCP	Royal College of Physicians
SCOTH	Scientific Committee on Tobacco and Health
SCSRN	Smoking Cessation Service Research Network
SES	Socio-economic status
SGA	Small for gestation age
SHA	Strategic health authority
SHS	Second hand smoke
SIDS	Sudden infant death syndrome
SRNT	Society for Research on Nicotine and Tobacco
SSS	Stop smoking service
TPB	Theory of Planned Behaviour
UCL	University College London
UK	United Kingdom
US	United States

USDHHS	United States Department of Health and Human Services
USEPA	United States Environmental Protection Agency
WHO	World Health Organisation



# **Chapter 1:**

## **The Tobacco Epidemic And Health**

Smoking is the largest avoidable cause of death in the United Kingdom (UK) and in all developed countries. There are up to 114,000 UK deaths per year from smoking related diseases (Peto et al., 2006). Figures suggest that tobacco companies are responsible for more deaths and illness than any other commercial enterprise, including arms dealers and those producing illegal drugs (Wald and Hackshaw, 1996). Currently in the UK there are about 10.5 million adult smokers (Office for National Statistics (ONS), 2009a). This is the modern tobacco epidemic; a man made, avoidable killer.

### **1.1 Tobacco through the years**

Tobacco is not a 21<sup>st</sup> century creation. Knowledge of its production and multiple uses can be dated back to 6000 BC in the Americas, where it was originally cultivated (Mackay et al., 2006). Tobacco was not allegedly chewed or smoked until 1000 BC by Mayan civilisations in Central America. Tobacco was often used as part of religious and cultural rituals; it was believed to have healing powers. When the Mayan civilisations dissolved, the knowledge of tobacco spread reaching most of North and South America (GASP, 2010).

This knowledge of tobacco remained predominantly dormant outside of America until 1492, when Christopher Columbus and his crew brought tobacco back to Europe following their exploration of America (Mackay et al., 2006). There is some debate about who the first individual was who brought tobacco to the UK. It was suggested by some to be Sir Frances Drake who brought it back from the Americas. Smoking tobacco for pleasure was thought to be popularised by Sir Walter Raleigh (GASP, 2010).

By 1604 tobacco was common in England, and even this early on, there was some indication of tobacco's danger to health. This was illustrated by King James I in 'A Counterblaste To Tobacco' (sic) where he wrote that 'smoking is a custom,

loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs' (Mackay et al., 2006).

Over the next 300 years smoking in the UK became a regular part of many people's lives. This was most likely due to the introduction of machines which produced high volumes of cheap rolled cigarettes, making cigarettes increasingly easy to acquire (Armstrong, 1986). Consumption and thus production of cigarettes dramatically expanded during the first and second world wars, when cigarettes were provided to servicemen to boost morale in the trenches (Wald and Nicolaides-Bouman, 1991).

Around this time initial research was being conducted to attempt to explain the links between smoking and premature death. During the 1920s the first report was released which linked smoking to lung cancer. However this failed to be reported by many newspapers out of fear of offending the powerful tobacco companies who used these newspapers for the majority of their advertising (The Cancer Council NSW, 2002).

In 1950 Dr Richard Doll and Professor Austin Bradford Hill published findings in the British Medical Journal stating the links between smoking and lung cancer and highlighting the dangers of tobacco consumption (Doll and Hill, 1950). The tobacco companies were still dominating much of the market and were therefore immensely powerful. However in 1965 the UK government prohibited cigarette advertising on the television and by 1971 health warnings began to appear on packets of cigarettes (Mackay et al., 2006).

In 2002 the British Medical Association (BMA) released a report that argued that there was 'no safe level of environmental tobacco smoke' (BMA, 2002). This supported previous findings by Doll and Peto (1985) who claimed that "An hour a day in a room with a smoker is nearly one hundred times more likely to cause lung cancer in a non-smoker than twenty years spent in a building containing asbestos". This fuelled concern regarding not only the dangers of tobacco for smokers, but also the dangers of second hand smoking. This was to lead to far reaching changes to UK health policy.

In 2004 Ireland was the first country to prohibit smoking in all enclosed public places which included pubs, clubs and restaurants (Tobacco Smoking (Prohibition) Regulation, 2003). In 2006 Scotland introduced legislation that prohibited smoking in all public places including pubs, clubs and bars (Smoking, Health and Social Care (Scotland) Act, 2005). England, Wales and Northern Ireland introduced smoke-free legislation, prohibiting smoking in all enclosed public places and workplaces including pubs and private members clubs throughout 2007 (see Chapter 2 for detail of tobacco control policies).

Despite this new legislation, smoking prevalence rates in the UK are still relatively high and the extent to which smoke-free legislation will contribute to reducing prevalence in the longer term is not yet clear.

## **1.2 Prevalence of smoking in the United Kingdom**

It is estimated that there are 10.5 million adult smokers (16 years old or over) in the UK today (ONS, 2009a). Over the last 60 years there have been a number of changes in the prevalence of UK adult smoking. In 1948 male prevalence rates peaked at 82 %, women's rates peaked almost 20 years later in 1966 at 45 % (ASH, 2006). Around this time reports were being published relating to the dangers of smoking, leading to smoking rates in both men and women falling. Men's smoking rates dropped faster than women's thus narrowing the difference in prevalence between the sexes. In the last 15 years the speed at which prevalence has been falling has slowed down in both men and women (Cancer Research UK, 2006).

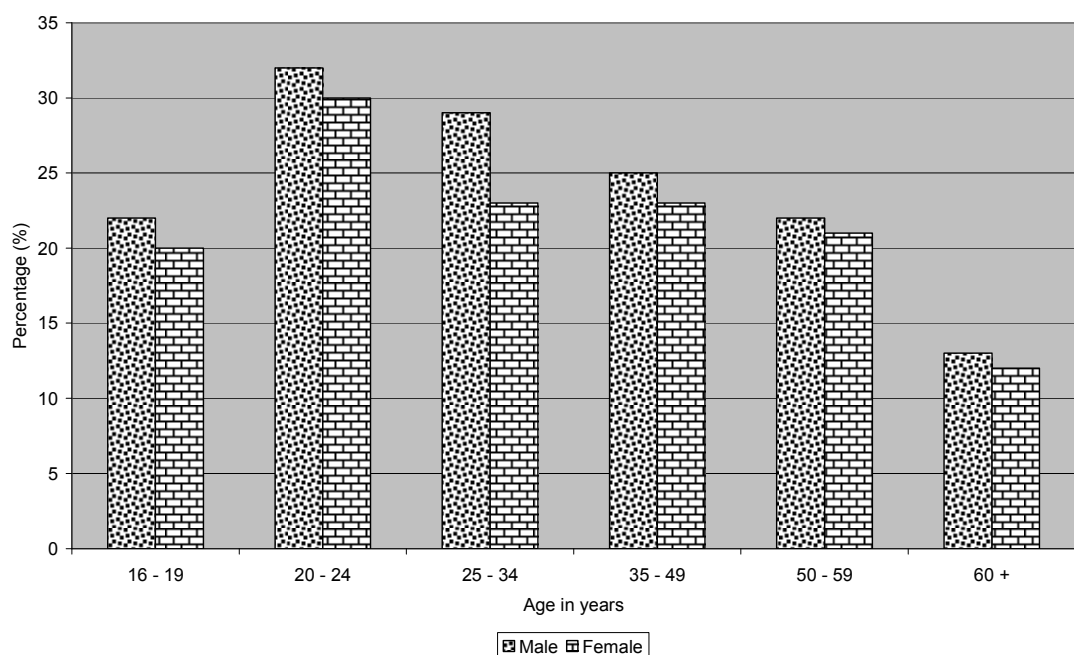
There are differences in smoking rates between the regions of the UK. The highest prevalence is in Scotland, where the rate for adults is 24 %, compared with England and Wales, where the average prevalence is 21 % (ONS, 2009a).

The most current figures suggest that 22 % of adults in the UK smoke (ONS, 2009b). However the UK has a diverse population and thus prevalence within a number of sub-groups of the population need to be discussed in more detail.

### 1.2.1 Gender differences and smoking

There are some significant differences between male and female smoking prevalence rates. It is currently estimated that in the UK 25 % of men and 20 % of women smoke (ONS, 2009b).

Figure 1.1: Prevalence of cigarette smoking in the United Kingdom, by sex and age, 2007



Source: adapted from ONS (2009a)

Figure 1.1 illustrates the differences between smoking rates in men and women across six age categories. Tobacco companies are aware of these differences between men and women and have marketed cigarettes to the sexes in gender specific ways.

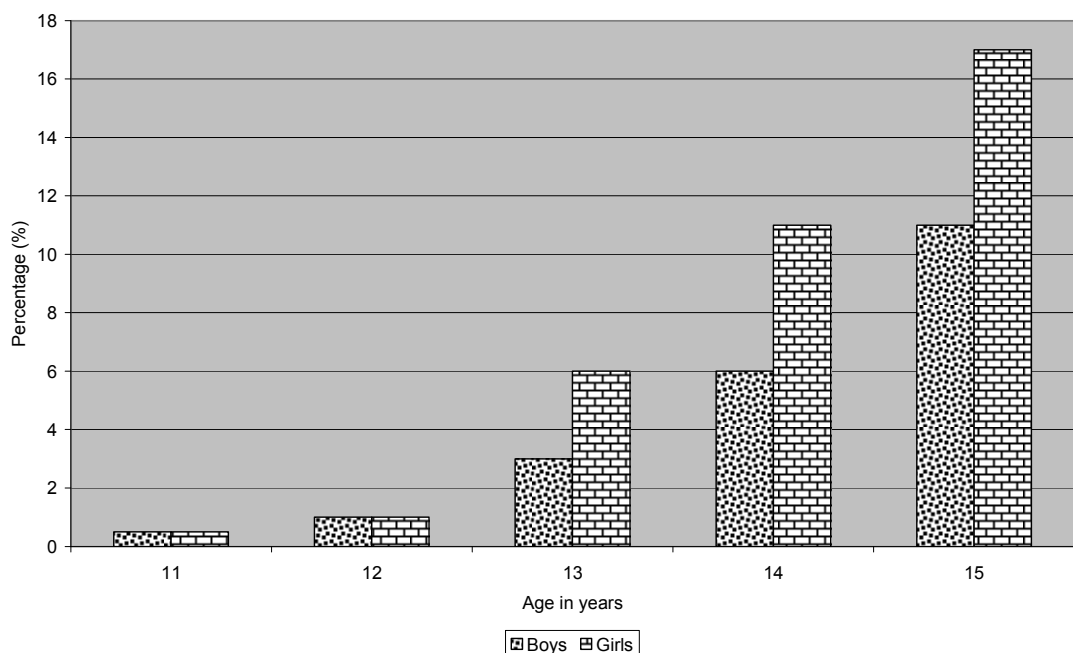
Cigarettes were aimed towards men by promoting them as masculine; suggesting that men would gain health, fitness, wealth, power and sexual appeal from smoking. This advertising has proved successful as almost one billion men now smoke worldwide (Ezzati and Lopez, 2003, in Mackay et al., 2006).

There are fewer females smokers in the world than males, but at 250 million the numbers are still high. Cigarettes were promoted to women by implying that smoking led to slimness, vitality, sophistication and sexual allure. Cigarettes aimed at women were longer, slimmer, had lower tar, were light coloured or were mentholated (Ezzati et al., 2004, in Mackay et al., 2006).

### 1.2.2 Young people and smoking

It is estimated that there are approximately 375,000 regular (at least one per week) smokers aged 11 – 15 in the UK today (British Heart Foundation (BHF), 2006).

Figure 1.2: Prevalence of cigarette smoking amongst young people in England, by sex and age, 2008



Source: adapted from National Centre for Social Research (2009)

Figure 1.2 illustrates the prevalence of cigarette smoking amongst young people in England. It can be seen that the number of regular smokers increases with age. Figures suggest that by 15 years 17 % of girls and 11 % of boys are smoking regularly (National Centre for Social Research, 2009). In this age group of 11 – 15 years, girls are more likely to smoke than boys (BHF, 2006). There is a dramatic rise in smoking prevalence between the ages of 11 and 15. At 11 years of age,



less than one percent smoke in England compared with 14 % at 15 years (National Centre for Social Research, 2009).

There are differences between young people's smoking patterns within the UK. Prevalence rates of young smokers peaked in England in 1996. In Wales prevalence in girls is currently high and rising; where as in boy's rates are low and falling. In Northern Ireland rates for both boys and girls are declining and in Scotland rates have been steadily falling since they peaked in 1994 (BHF, 2006). It should be remembered that there may be discrepancies with these comparisons, as different methods of data collection were used in each country and therefore the data are not directly comparable.

### 1.2.3 Age differences and smoking

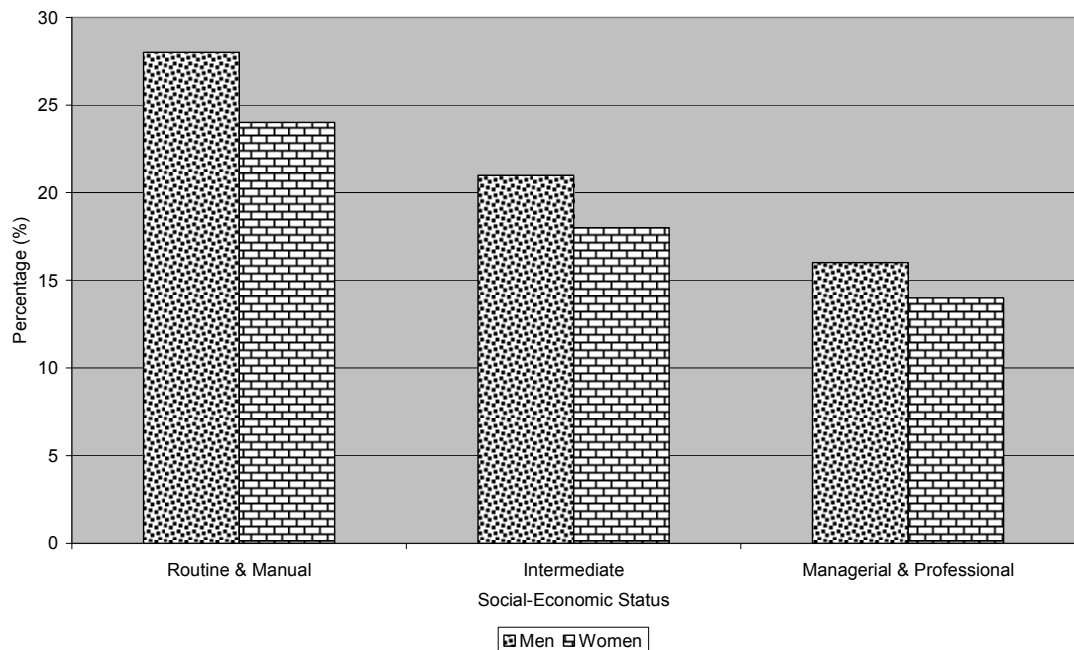
Rates of smoking vary across age groups (see Figure 1.1). The highest prevalence is in the 20-24 year old group, where 32 % of men and 30 % of women smoke. However the lowest prevalence is in the 60+ year old group, where 13 % of men and 12 % of women smoke (ONS, 2009a).

The largest decline in smoking prevalence rates over previous years has been among the older smokers; however, this group smoke more cigarettes per day than any other age group (ONS, 2006).

### 1.2.4 Socio-economic status and smoking

Edwards (2004) suggested that smoking is one of the most important determinants of social inequalities in health in the developed world. Figure 1.3 illustrates prevalence of smoking by socio-economic status (SES) and sex. SES can be measured in a number of ways. In England in recent years occupational categories have been increasingly used and the examples here use these categories.

Figure 1.3: Prevalence of cigarette smoking in the United Kingdom, by sex and socio-economic status, 2007



Source: adapted from ONS (2009a)

Figures suggest that SES is highly predictive of smoking prevalence. Routine and manual workers have the highest smoking prevalence, 28 % of men and 24 % of women, followed by intermediate workers, 21 % of men and 18 % of women, with managerial workers and professionals having the lowest prevalence rates (ONS, 2009a).

There is also an association between SES and the age at which people begin to smoke. For example, 29 % of smokers from managerial and professional groups began smoking before the age of 16, in comparison with 44 % of routine and manual workers (ASH, 2006).

### 1.3 Smoking in Europe

The World Health Organisation (WHO) collates data about European countries on the 'Health For All' Database. Using this, the average European Union smoking prevalence rate is 27 % and the whole of Europe's average smoking prevalence

rate is 30 %. This implies that, at 22 %, the UK's smoking rate is slightly under the European average (WHO Regional Office for Europe, 2009).

It must be highlighted that although UK prevalence rates have reduced in recent years, these declines were substantially less than those of nearby countries such as France, Greece, Denmark and Sweden (BHF, 2006).

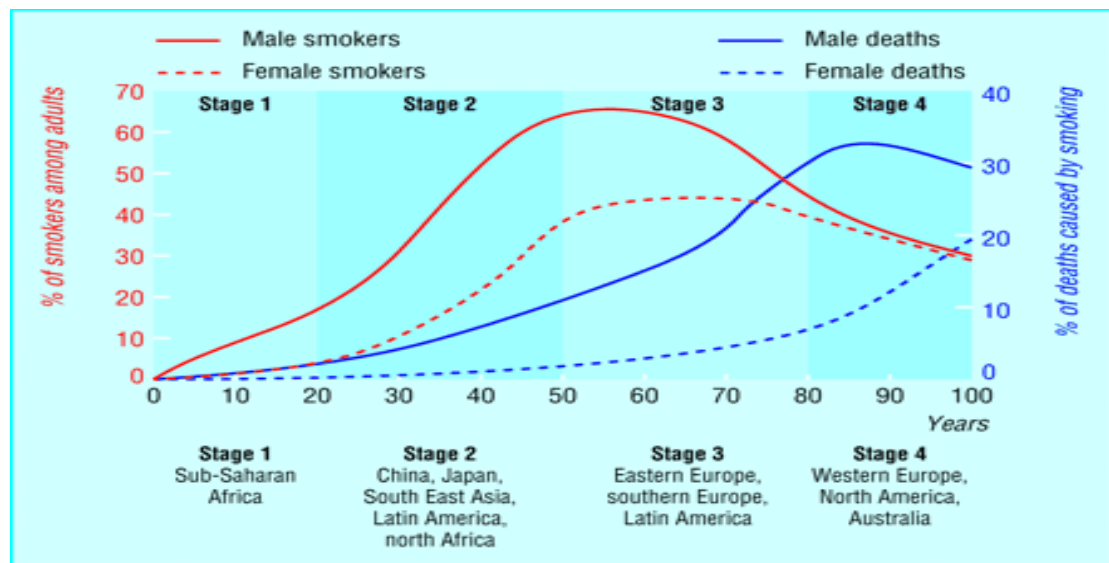
#### **1.4 The global tobacco epidemic**

In the UK the main method of tobacco use is through smoking rolled cigarettes, however around the world other forms of tobacco use are much more common, for example chewing tobacco or snuff (BHF, 2006). It can therefore be difficult to make reliable comparisons of international rates of smoking prevalence.

From the data that is available much variation can be seen for both men and women. For example, in Indonesia 69 % of men smoke compared with six percent of men in Cambodia. In Guinea 44 % of women smoke, compared with less than one percent of women in Oman (BHF, 2006). Steptoe et al. (2002) found similar variation during a study that looked at university students smoking habits in 23 worldwide countries. Their figures illustrate for example, in Portugal 47 % of men smoke compared with 14 % of men in Thailand and in Spain 46 % of women smoke compared with two percent in Thailand. It must be noted with such research that as university students are predominantly more privileged and more educated than the average population, the results may have been biased towards lower than average prevalence rates. These comparisons however suggest that UK smoking prevalence rates are higher than average for women and lower than average for men in relation to the rest of the world.

In order to illustrate the global tobacco epidemic a model was devised by Lopez and colleagues (1994).

Figure 1.4: Stages of worldwide tobacco epidemic



Source: Lopez et al. (1994)

This is a four stage model, with each stage illustrating different levels of tobacco use across the world. Countries progress through the stages, commonly residing at each stage for 20 – 30 years (Steptoe et al., 2002).

Stage one: Smoking prevalence is below 20 % in men, with very limited smoking amongst women. There are low levels of lung cancer and other smoking related illness. This is expected in developing countries, where the tobacco companies may not yet have penetrated (Steptoe et al., 2002).

Stage two: Smoking prevalence is approximately 50 % in men with a rising number of women beginning to smoke. The number of men dying from lung cancer and smoking related illness increases. This is expected in countries within Asia and Latin America where tobacco control is not yet well developed (Steptoe et al., 2002).

Stage three: Smoking prevalence in men reaches a peak and begins to decline; women reach their peak a number of years after men. More people are dying from smoking related illness and the gap between male and female prevalence narrows. This is expected in Eastern and Southern Europe (Steptoe et al., 2002).

Step four: Smoking prevalence declines in both men and women; there is less smoking related illness being seen in men; however smoking related deaths amongst women continue to rise. This is expected in the United States (US), Western Europe, Australia and Canada where there are many anti-smoking programmes and tobacco control policies (Steptoe et al., 2002).

It has previously been discussed that smoking prevalence rates in some developed countries are declining, however worldwide cigarette consumption doubled between 1960 and 1986, and is still continuing to increase (Chandler, 1986). The tobacco industry is still growing because the market in some developing countries is expanding as they enter stage two of Lopez and colleagues' model. World deaths from smoking are expected to increase to over ten million per year by 2030 and 70 % of those are expected to be in developing countries (Edwards, 2004). The achievement of combating the tobacco epidemic in Northern America and Northern Europe would be weakened if the epidemic is merely transferred to other parts of the world.

## **1.5 The health consequences of smoking**

In 1964 the US Surgeon General stated "cigarette smoking is hazardous to human health. It is a flat scientific fact. Establishing it and demonstrating it is no longer our goal". It has since then been concluded time and again that smoking is the single greatest cause of avoidable morbidity and mortality in developed countries (US Surgeon General, 2004).

Tobacco is responsible for the death of one in ten adults worldwide, equating to about five million deaths each year (WHO, 2010). In 2008, over 80,000 people in England died prematurely from a smoking related disease (The Information Centre (IC), 2009).

All forms of tobacco are addictive and dangerous (Mackay et al., 2006). Chemical research into tobacco smoke determined that it contains over 4000 chemicals (Morris, 2001), of which 60 are known or suspected carcinogens (American Lung

Association, 2005). Examples of these toxic chemicals include cadmium, phenol and hydrogen cyanide (Mackay et al., 2006). The 2004 US Surgeon General Report 'Health Consequences Of Smoking' concluded that smoking harms nearly every organ of the body, causing many diseases and reducing the general health of all smokers (US Surgeon General, 2004).

The original research that linked smoking to lung cancer and other diseases in the 1950s and 1960s will now be considered, followed by a more detailed review of the relationship between smoking and specific diseases. Discussion will cover the most common smoking related conditions including lung cancer, bladder cancer, circulatory disease, stroke, coronary heart disease and chronic obstructive pulmonary disease (COPD).

## **1.6 Early developments in tobacco research**

As stated earlier, the relationship between smoking and health was mostly ignored until the late 1940s, when the Registrar General began to note striking changes in rates of lung cancer deaths. In 1947, in England and Wales, 9,287 people reportedly died as a result of lung cancer, an unexplainable increase from 612 people in 1922 (Doll and Hill, 1950).

Some proposed reasons for this, such as increased standards of diagnosis (Kennaway and Kennaway, 1947; Stocks, 1947), however anecdotal evidence suggested otherwise. Müller (1939) found that out of 86 lung cancer patients in his study, three were non-smokers and 56 were heavy smokers. Similarly Therwall Jones (1949) found that out of 82 lung cancer patients in another small study, eight were non-smokers and 28 were heavy smokers. These studies were suggestive of a link between smoking and lung cancer; however they did not have enough methodological stability for generalised results to be obtained.

In 1950, Wynder and Graham conducted a large scale case-control trial in America. They interviewed 684 patients that had lung cancer and a similar number of matched controls about their smoking habits, if and when they had ever quit and their estimated average daily use of tobacco over the previous 20 years. They

arrived at the conclusion that excessive and prolonged use of tobacco was an important factor in the development of bronchiogenic carcinoma (lung cancer). This conclusion was derived from their evidence that of 605 lung cancer patients 97 % were moderate to heavy to chain smokers, in comparison with 74 % of the control group. Of the lung cancer patients, 96 % had a history of smoking for more than the past 20 years (Wynder and Graham, 1950).

These findings were of tremendous importance in the understanding of the epidemiology of lung cancer; it was the largest retrospective study in the field at that point and therefore set guidelines for measurement techniques for other similar retrospective studies. It highlighted the added danger of cigarettes above pipes and cigars, and prompted discussion of a lag time between initiation of smoking and development of cancer. Most importantly the work by Wynder and Graham led other researchers to study smoking and lung cancer and explore any confounding variables in its development. This was the beginning of numerous pieces of research which now provide us with our detailed understanding of smoking, lung cancer and other related diseases.

Whilst Wynder and Graham's work was being completed in America, two researchers in the UK, Richard Doll and Austin Bradford Hill, conducted a large case-control study in London. They aimed to determine whether lung cancer patients differed from other patients in respect to their smoking habits or exposure to atmospheric pollution. They assessed the smoking history of 1,732 lung cancer patients and 743 controls. Doll and Hill (1950) concluded that there was a 'real' association between lung cancer and smoking. They stated that the risk of developing lung cancer increased accumulatively with the amount smoked. They also suggested that arsenic in tobacco smoke may be the carcinogen that caused cancer and that tobacco itself may not be dangerous. Doll and Hill (1950) implied from their results that there was no association between smoking and other respiratory diseases or cancer at other sites; this was later found to be incorrect.

Another group of researchers, Schrek and colleagues (1950), were also researching the relationship between tobacco smoking and cancer in America. Schrek et al. (1950) posed the question that although other work concluded that

there was a statistically significant association between lung cancer and smoking, was this association biologically significant? Their research concluded that there was a direct relationship between cigarette smoking and lung cancer, and that cigarette smoke may be a carcinogenic agent. They then posed the question that, if cigarette smoke was a carcinogenic agent, was the habit really dangerous? Schrek et al. (1950) came to the conclusion that as the number of cancer deaths was low in relation to the total number of smokers, cigarette smoke was, at most, only a weak carcinogenic agent; this was later found to be incorrect.

In 1952 Doll and Hill carried out a follow-up study to their 1950 work. The original study had been conducted solely in London and despite their conclusive results; it was felt that the influence of London's environmental pollution may have biased the data. Thus they replicated the 1950 study using lung cancer patients and controls from Bristol, Cambridge, Leeds, Newcastle-upon-Tyne and London. Similar results were found and once again Doll and Hill (1952) concluded a 'real' association between smoking and lung cancer.

In light of these and other research findings, in 1957, US Surgeon General Burney stated in a press release that "excessive smoking is one of the causative factors of lung cancer". By 1959, Burney altered this statement to "the weight of evidence at present implicates smoking as the principle factor in the increased incidence of lung cancer" (US Surgeon General, 1964).

By 1964 more evidence had been produced, the 'Surgeon General Advisory Committee on Smoking and Health' was created and the first US Surgeon General Report 'Smoking and Health' was produced (US Surgeon General, 1964). It concluded that cigarette smoking contributed substantially to mortality from certain specific diseases and to overall death rate. The report discussed numerous diseases and health implications related to smoking, these included lung cancer, oral cancer, cancer of the larynx, cancer of the oesophagus, cancer of the urinary bladder, stomach cancer, chronic bronchitis and emphysema, cardiovascular disease, peptic ulcer, tobacco amblyopia, cirrhosis of the liver and low infant birth weight (US Surgeon General, 1964).



Since 1964, US Surgeon General Reports have been published at regular intervals, updating the research findings and conclusions. In the 2004 report 'The Health Consequences of Smoking', nine more diseases were added which had not previously been causally associated with smoking, these included cancer of the uterine cervix, pneumonia and periodontitis (US Surgeon General, 2004).

#### 1.6.1 Smoking and cancer

Almost every report produced in relation to smoking and health since the first US Surgeon General Report in 1964 acknowledged that smoking is the single greatest cause of avoidable morbidity and mortality in developed countries. One of the damaging effects of smoking is its ability to induce a range of types of cancer.

Cancer is 'a malignant tumour. It arises from the abnormal and uncontrolled division of cells that then invade and destroy the surrounding tissue' (Oxford Medical Dictionary, 2002, p 103). The term cancer covers nearly 200 different diseases, which through abnormal cell development; produce tumours called neoplasms (Ogden, 2000). Smoking has been shown to cause more than ten cancers and has been linked with many others (US Surgeon General, 2004). Some of the cancers caused by smoking make logical sense due to the method in which carcinogens in smoke are inhaled, such as oral, laryngeal, oesophageal and lung cancer. However others at first glance would not be as easily explained, such as bladder, cervical, kidney and pancreatic cancer (US Surgeon General, 2004). Two of these cancers will now be explained in more detail, lung cancer is discussed as it is the most common form of cancer associated with smoking; 90 % of lung cancer cases are caused by smoking (Cancer Research UK, 2004a). Bladder cancer is then discussed as one example of many other cancers caused by smoking; tobacco smoking is the principal preventable risk factor for bladder cancer (Cancer Research UK, 2002).

#### 1.6.2 Smoking and lung cancer

In the UK in 2002 approximately 34,000 people died from lung cancer. It was estimated that 28,000 of these deaths were caused by smoking (Cancer Research

UK, 2004b). The 2004 US Surgeon General Report claimed that 'the evidence is sufficient to infer a causal relationship between smoking and lung cancer' (p 2). It is believed that smoking leads to genetic changes in cells within the lung that ultimately lead to the development of cancer.

The risk of lung cancer is approximately 15 times higher in a smoker than a non-smoker (Boffetta et al., 1999). This risk increases over time and is highly related to the length of time the individual smokes for (Boffetta et al., 1999) and the amount of cigarettes smoked per day (Sastre et al., 1999). The risk of developing lung cancer is proportional to total cigarette smoke exposure; therefore lung cancer is more common around the ages of 60 to 70 years old. However if an individual begins smoking at a very young age, the chances that they develop cancer earlier than 60 years old is high (McManus, 2001).

There is a higher incidence of lung cancer in heavier smokers, for example in communities where smoking is prohibited, such as with 'Seventh Day Adventists', much lower rates of lung cancer have been observed (Baldwin and Matthias, 1970). Additionally where there are high tobacco control efforts, such as successful smoking cessation programs, there are lower lung cancer death rates (Jemal et al., 2003).

Cutting down the amount an individual smokes or changing to a 'lower' or 'milder' form of tobacco offers little health benefit. Milder or lower tar cigarettes have in the past been advertised towards women, selling them as the sexier, more feminine way to smoke. It is often the case however that in order to receive the same biological effect from a milder cigarette, the smoker inhales deeper or for longer. This is what is known as compensatory smoking and is as detrimental to health as any other form of smoking (International Agency for Research on Cancer (IARC) 1986).

If an individual stops smoking completely, there can be substantial benefits upon health, even for those who stop smoking in their 50s or 60s. Those who stop smoking before 30 years of age can erase over 90 % of the risk of lung cancer that they built up as a smoker (Peto et al., 2000). It was highlighted however in the

2004 US Surgeon General Report that even after many years of cessation, the risk of lung cancer in former smokers is still higher than in those who never smoked.

There are of course other risk factors for lung cancer, such as urban pollution and working with certain chemicals eg. asbestos but above all lung cancer is a smoking related disease. For a major reduction in lung cancer death rates to occur, there needs to be a dramatic drop in cigarette prevalence rates (McManus, 2001).

### 1.6.3 Smoking and bladder cancer

As mentioned previously, due to the method in which cigarette smoke enters the body, it may not be obvious how smoking affects particular organs, such as the bladder. However as the US Surgeon General Report (2004) stated, the carcinogens enter the blood stream and the blood flows to all bodily organs, therefore all organs are put at the risk of developing cancer.

Smoking has been shown to have a causal relationship with many cancers, one example is bladder cancer. The 2004 US Surgeon General Report stated that 'the evidence is sufficient to infer a causal relationship between smoking and bladder cancer' (p 2). Bladder cancer is most commonly found in males around the age of 65. When bladder cancer occurs at a younger age the cancer is often found to be more aggressive. Bladder cancer accounts for one percent of all cancer cases and of these around 60 % are caused by smoking. Smoking lowers the age of onset and increases the aggression of the cancer (Keane et al., 2001).

The first reports linking bladder cancer to smoking were produced by Holsti and Ermala (1955). They induced bladder cancer in mice by swabbing the mice with tobacco tar. This led to further research which aimed to establish whether the relationship also existed in humans.

Lilienfeld (1964) found that cigarette smokers had a two to three fold increased risk of developing bladder cancer. This relationship had not been observed as often as the relationship between lung cancer and smoking. However Lilienfelds (1964)

findings pointed in the direction of a causal relationship between smoking and bladder cancer.

Puente et al. (2006) pooled together data from 14 case–control studies, carried out between 1976 and 1996, which investigated bladder cancer in Europe and North America. Puente et al. (2006) concluded that cigarette smoking was well established as a cause, with smokers having a two - three fold increased risk. The risk increased with the duration and intensity of the smoking (Puente et al., 2006). This conclusion supported findings by Brennan et al. (2000) and Castela et al. (2001). A dose response trend was also noted by Samanic et al. (2006) in a study of newly diagnosed bladder cancer patients in Spain; as the duration and intensity of smoking increased, so did the size of the risk. Samanic et al. (2006) found that the risk dropped dramatically when a smoker stopped smoking; however increased risk was still noted in occasional smokers. Similarly, in 2004 the US Surgeon General highlighted that cessation of smoking reduces risk of bladder cancer by about 50 % after only a few years, in comparison with continued smoking. Once again, the only way to reduce the risk is to stop smoking.

#### 1.6.4 Smoking and circulatory disease

Circulatory disease (or cardiovascular disease) is the leading cause of death in western societies (West and Shiffman, 2004). Cardiovascular disease is the main smoking-related cause of death (Kennedy, 2001); it accounts for one third of all smoking related deaths (McEwen et al., 2006). In the 2004 US Surgeon General Report four diseases were listed under the overall title of cardiovascular diseases, for all of these 'the evidence is sufficient to infer a causal relationship between smoking and...(the disease)' (p 3). The diseases were abdominal aortic aneurysm, atherosclerosis, cerebrovascular attack (stroke) and coronary heart disease.

The average smoker has twice as much risk of developing cardiovascular disease as an individual who has never smoked (Wald and Hackshaw, 1996). Interestingly, unlike with cancer and many other smoking related diseases, there is not a dose response relationship. With cardiovascular disease the risk for a light smoker is similar to that of a heavy smoker (Dunn et al., 1999). This implies that an

occasional or very light smoker is at risk of a cardiovascular event, therefore cutting down the amount of cigarettes smoked is not enough. A smoker must quit completely in order to reduce their risk.

Two major cardiovascular diseases caused by smoking are cerebrovascular attack or a stroke, and coronary heart disease which leads to angina pectoris (angina) and myocardial infarction (heart attack). Both stroke and coronary heart disease are caused by atherosclerosis.

#### 1.6.5 Smoking and atherosclerosis

Atherosclerosis occurs when irregularly distributed lipid deposits appear in the intima of large and medium size arteries. When this is severe it leads to the reduction of the arterial lumen and usually results in thrombosis, leading to angina, a heart attack or a stroke (Steadman's Medical Dictionary, 1982). Many factors lead to atherosclerosis, including obesity, high blood pressure and lack of exercise, a major factor is smoking (Roberts et al., 2001).

#### 1.6.6 Smoking and cerebrovascular attack (stroke)

A stroke describes sudden damage to the brain tissue, which is caused by a lack of blood supply or a rupture of a blood vessel. The brain cells that are affected die and the parts of the body controlled by that area of the brain stop functioning. The change in blood supply is caused by atherosclerosis, which in turn can be caused by smoking (Black's Medical Dictionary, 1995). If an individual were to cease smoking, the amount of atherosclerosis could be reduced and the risk of a stroke could be lowered.

#### 1.6.7 Smoking and coronary heart disease

Coronary heart disease covers two disorders, angina and heart attack. Both of these occur when atherosclerosis narrows and blocks the arteries which supply the heart. If the blockage is temporary or incomplete, angina occurs, causing pain in the chest, arm and neck. If the blockage is more severe the individual will suffer a

heart attack, where a reduced amount of blood and therefore oxygen, is given to a proportion of the heart, causing that part of the heart muscle to die (Roberts et al., 2001).

Parish et al. (1995) found that adult smokers, under the age of 55, had a six - seven times higher risk of coronary heart disease than non-smokers. Some coronary heart disease risk factors can not be changed, such as age, gender and family history, however others such as lack of exercise or smoking can be modified. As with a stroke, if the individual stopped smoking, the risk of coronary heart disease would decrease as there would be less atherosclerosis build up.

#### 1.6.8 Smoking and chronic obstructive pulmonary disease

“Chronic obstructive pulmonary disease is a heterogeneous collection of conditions that can affect various structures within the lung in a number of different ways. These various processes can all result in limitation of expiratory airflow” (Rennard, 1998, p 235). The disease has features of emphysema and chronic bronchitis. COPD is a respiratory disease where sufferers lose the ability to transfer sufficient oxygen from their lungs to their bloodstream (West and Shiffman, 2004). Over time the sufferer develops a chronic cough and shows signs of breathlessness (West and Shiffman, 2004). Sufferers of COPD are predominantly smokers. In the UK in 2000, there were 24,300 smoking related COPD deaths (Peto et al., 2004), making up 84 % of all COPD deaths in the UK that year (Royal College of Physicians (RCP), 2000).

The only way to slow down the progression of COPD is to stop smoking (West and Shiffman, 2004). Following cessation of smoking, lost lung function is not recovered, however the rate of decline returns to normal. Xu et al. (1992) carried out a longitudinal cohort study of COPD sufferers and concluded that those who continued to smoke had a much steeper decline in lung function than those who had stopped smoking. These findings were supported by Anthonissen et al. (1995) who found that stopping smoking could reduce the rate of decline in lung function. As with all of the other diseases discussed so far, the way to reduce the risk of developing COPD is to stop smoking.

#### 1.6.9 Links with other health problems

As well as causing cancers, cardiovascular disease and COPD, smoking can increase the risk of developing many other wide ranging diseases and disorders (Mackay et al., 2006). These include gingivitis (gum disease), cataracts, crohn's disease, impotence, osteoporosis, pneumonia, psoriasis, wrinkling of the skin, stomach ulcers and tobacco amblyopia (loss of vision) (American Council on Science and Health, 1997). Smoking can also impair the function of the immune system, cause early onset menopause and lead to sperm impairment (American Council on Science and Health, 1997). The symptoms of asthma, multiple sclerosis and the common cold, among other conditions, can be more severe and persistent in smokers (American Council on Science and Health, 1997).

The influence of cigarette smoke was explained by Richard Carmona, the US Surgeon General in 2004, who stated "we've known for decades that smoking is bad for your health. The toxins from cigarette smoke go everywhere the blood flows" (US Surgeon General, 2004), thus having detrimental effects all over the body. When smoke is breathed in through the mouth and enters the lungs, it begins systematic circulation throughout the body (Murray, 1986). For example carbon monoxide passes from the alveoli into the capillaries, where it binds to the red blood cells (US Surgeon General, 2004). Another example is benzo(a)pyrene, a carcinogen found in tobacco smoke, which can bind itself to cells both in the smokers airways and in their major organs (US Surgeon General, 2004). This distribution of tobacco smoke components underlies the associations between smoking and disease.

### 1.7 Second hand smoke

Second hand smoke (SHS) is the complex mixture of gases and particles that are expelled from a burning cigarette, pipe or cigar (National Toxicology Program, 2000). SHS exposure, also known as passive smoking, involuntary smoking or environmental tobacco smoking, is when the non-smokers inhale this smoke from their environment. The term SHS is used from here on in.

SHS is a combination of sidestream and mainstream smoke (US Surgeon General, 2006). The main content of SHS consists of sidestream smoke, which is emitted directly from the burning end of a cigarette, pipe or cigar (Dockery and Trichopoulos, 1997). The other proportion of SHS consists of mainstream smoke, which is generated when smokers puff on cigarettes, pipes or cigars. This smoke is inhaled and then exhaled by smokers and can be subsequently inhaled by those nearby.

Cotinine concentration in non-smokers is used as a quantitative guide to the extent of exposure; it is the principal metabolite of nicotine and is thought to be the best available marker of exposure to SHS (Benowitz, 1996). It has a half life of 16-20 hours and will reflect nicotine intake over the previous two - three days, therefore illustrating current, but not long term exposure (RCP, 2005). Cotinine can be measured in blood plasma or serum, urine, saliva and any other available body fluid. The level of cotinine needed to confirm exposure varies between studies, however as an example; the mean saliva cotinine concentration in a non-smoker, living in a smoke free home is 0.3 ng/ml, in comparison with a non-smoker living in a smoking exposed home where the mean concentration is 1.46 ng/ml (RCP, 2005).

SHS contains over 4,000 chemical compounds (United States Environmental Protection Agency (USEPA), 1992); over 50 of these have been identified as known or reasonably anticipated human carcinogens (National Toxicology Program, 2000). These include benzene, formaldehyde, hydrazine, butadiene and benzopyrene (Dockery and Trichopoulos, 1997). In 1992 the USEPA classified SHS as a Class A (known human) carcinogen (USEPA, 1992).

The implications of SHS exposure on health will now be discussed, focussing on non-smoking adults, children and pregnant women, followed by a brief discussion of legislation which aims to protect non-smokers from the dangers of SHS exposure.



It should be remembered when discussing SHS research findings, that the SHS dose received by an individual is dependent upon many factors, including the smoking behaviours of those in the surrounding environment, the size of the room, the method of ventilation, as well as the age, activity and breathing rate of the individual being exposed.

## **1.8 Immediate adverse effects of second hand smoke**

SHS exposure can have immediate effects upon health. Much research has focused upon long term health effects from continuous accumulated exposure, however there are also a number of immediate adverse effects upon the body. For example eye irritation, headaches, cough, sore throat, dizziness and nausea (Otsuka, 2001). Even short term exposure can have an immediate impact. For instance 30 minutes of exposure is long enough to reduce coronary blood flow (Otsuka, 2001), potentially increasing the risk of a myocardial infarction (US Surgeon General, 2006). Epidemiological studies have investigated the long term implications of SHS exposure upon health, a major adverse effect is upon cardiovascular functioning.

### **1.8.1 Cardiovascular disease associated with second hand smoke in adults**

The 2006 US Surgeon General report 'The Health Consequences of Involuntary Exposure to Tobacco Smoke' concluded that the evidence was sufficient – level one, the most conclusive level – to infer a causal relationship between SHS exposure and increased risk of coronary heart disease morbidity and mortality in men and women (US Surgeon General, 2006). The estimated increased relative risk was 25 – 30 %. A similar conclusion was reached by the UK Scientific Committee on Tobacco and Health (SCOTH) on SHS in 2004. This report updated the evidence from the 1998 SCOTH report on SHS. SCOTH concluded in both reports that SHS exposure is a causal factor of ischemic heart disease, with an estimated increased relative risk of 25 % for an exposed non-smoker (SCOTH, 2004). SHS exposure can cause increased risk of thrombosis, lower oxygen supply and greater oxygen demand, which provides a biologically plausible reason for the increased risk of heart disease (Glantz and Parmley, 1995).

A review of the evidence by Law et al. (1997) highlighted the large effect upon the cardiovascular system caused by a small amount of exposure. Thun et al. (1999) reviewed 17 studies, which looked at the cardiovascular health of non-smokers married to smokers. Despite the studies having different locations, study populations, investigators and designs, the evidence was consistent that non-smokers married to smokers had a higher risk of coronary heart disease. It was estimated that there were between 35,000 and 40,000 annual cardiovascular disease related deaths in the US which were caused by SHS exposure (Taylor et al., 1992). However other risk factors for heart disease, eg. obesity and physical activity levels were not controlled for.

It must be considered when investigating cardiovascular disease that there are many other risk factors which could act as confounding variables, such as diet and level of physical activity. Steenland et al. (1996) analysed data from a cohort study of SHS exposure and cardiovascular disease, accounting for other cardiovascular risk factors. They continued to find a modestly elevated risk of heart disease due to SHS exposure in never-smokers. This same data set was re-analysed by Glantz and Parmley (1996) who arrived at the same conclusions. Research by Raitakari et al. (1999) inspired optimism that cardiovascular functioning can improve following the withdrawal from regular SHS exposure. Functioning did not return to normal however maximum improvement was demonstrated following two years of cessation from SHS exposure. This highlighted that by reducing SHS exposure in the general public, through the introduction of smoke-free legislation for example, there could be health improvements for non-smokers who were already suffering from SHS induced cardiovascular disease. The evidence pointed to the conclusion that SHS exposure caused a 25 % increased relative risk of a cardiovascular episode in a non-smoker; this risk was especially high in those who already suffered from cardiovascular weakness. However reduction in SHS exposure could lead to some improvements in cardiovascular health (US Surgeon General, 2006).

There is substantial evidence of a causal association between active smoking and ischemic and haemorrhagic stroke (Wannamethee et al., 1995; Haheim et al., 1996) however significantly less research exploring the impact that SHS exposure

has upon stroke. Bonita et al. (1999) investigated the risks of stroke due to SHS exposure and found that SHS exposure was associated with subsequently increased risk of stroke. Due to the small amount of evidence, however, it is not generally accepted that SHS exposure is an independent cause of stroke. The US Surgeon General in 2006 concluded that the evidence was suggestive but not sufficient to infer a causal relationship between SHS exposure and increased risk of stroke.

#### 1.8.2 Lung cancer associated with second hand smoke in adults

In 1981 two epidemiological studies, Hirayama (1981) in Japan and Trichopoulos et al. (1981) in Greece, found an association between spousal SHS exposure and lung cancer. Following these findings, and other accumulated evidence, in 1986 the US Surgeon General concluded that involuntary smoking can cause lung cancers in non-smokers. The 2006 US Surgeon General report confirmed this statement, highlighting that there was sufficient evidence to infer a causal relationship between SHS exposure and lung cancer in lifetime non-smokers. The estimated increased relative risk was 20-30 % (US Surgeon General, 2006). The Surgeon General's conclusions supported those of SCOTH (2004) that stated that SHS exposure caused lung cancer, with an estimated overall increased relative risk of 24 % for exposed non-smokers.

Some research has explored a dose-response relationship between SHS exposure and lung cancer risk. Johnson et al. (2001) found an independent association between residential exposure, occupational exposure and lung cancer. It was also suggested that the combined occupational and residential exposure illustrated a dose-response relationship between SHS exposure and lung cancer risk.

A report produced by the IARC stated that SHS involved exposure to the same carcinogens and toxic substances that active smokers were exposed to (IARC, 2002). These carcinogens and toxic substances were the principle cause of lung cancer in active smokers, and although inhaled in lower doses, this implied that SHS exposure carried an increased risk of lung cancer. The IARC report stated

that there was sufficient evidence that involuntary smoking caused lung cancer in humans.

SHS exposure has a similar chemical makeup of active smoking, however in a lower dose. Active smoking has been repeatedly shown to cause lung cancer in smokers, with a positive dose-response relationship (Doll and Peto, 1978, 1981). SHS exposure involves breathing in and metabolising a number of carcinogens; even brief SHS exposure can damage cells which can progress to lung cancer (US Surgeon General, 2006).

New evidence has provided more support for this causal link. Alipour et al. (2006) studied occupational SHS exposure in France and its associations with lung cancer. Vineis et al. (2007) illustrated strong associations between lung cancer and SHS exposure in the European Prospective Investigation into Cancer and Nutrition study. This evidence along with numerous epidemiological studies, contributed to the conclusion that SHS exposure caused lung cancer in non-smokers (Hackshaw, 1998).

Nishino et al. (2001) investigated the relationship between SHS exposure, lung cancer and other cancers in Japanese non-smoking women. They found that SHS exposure was associated with slightly increased risk of cancer at all sites and a moderately increased risk of lung cancer and other smoking related cancers. Further investigation is needed to establish firm associations between SHS exposure and cancers in sites other than the lung.

### 1.8.3 Respiratory disease associated with second hand smoke in adults

Respiratory disease includes decline in pulmonary function, asthma and COPD, as well as respiratory symptoms such as coughing, wheezing and difficulty in breathing (US Surgeon General, 2006). As the lung is one of the primary organs involved in SHS exposure, much research has explored associations between SHS exposure and respiratory disease. Based on the evidence, the 2006 US Surgeon General report drew a number of conclusions relating to the respiratory implications of SHS exposure.

The report stated that the evidence was suggestive but not sufficient to infer a causal relationship between SHS exposure and acute respiratory symptoms, such as coughing, wheezing, chest tightness and difficulty breathing as well as chronic respiratory symptoms among adults with asthma and healthy adults (US Surgeon General, 2006). This conclusion was drawn from numerous studies, similar to Larsson et al. (2003) whose large epidemiological study examined respiratory effects of SHS exposure in a random sample of never-smokers in the general population. Larsson et al. (2003) recorded many respiratory symptoms, especially in women, such as attacks of coughing, wheezing and breathlessness. They also found a dose-response relationship between exposure and respiratory symptoms. However as the US Surgeon General reported (2006), more studies such as this must accumulate before firmer conclusions can be drawn.

The 2006 US Surgeon General report also stated that the evidence was suggestive but not sufficient to infer a causal relationship between both acute and chronic SHS exposure and decline in pulmonary function in both healthy adults and those with asthma. There is substantial evidence which explored SHS exposure and reduction in pulmonary function in children (Bek et al., 1999); however research into adult pulmonary functioning is inconsistent and not conclusive.

Chen et al. (2001) analysed data from the 4<sup>th</sup> Scottish MONICA survey of men and women in full time employment. They investigated any association between SHS exposure and reduction in pulmonary function and concluded a significant dose-response association between SHS exposure and reduction in pulmonary function in adults. However further evidence would be required for the US Surgeon General and other scientific bodies to conclude a clear causal relationship between SHS exposure and decline in pulmonary function.

The Surgeon General (2006) claimed that evidence was suggestive but not sufficient of a causal relationship between SHS exposure and adult onset of asthma and COPD. Eisner (2002) investigated the specific impact of SHS exposure upon adults with current asthma and found a significant association

between increased exposure and lowered pulmonary function. Worsening of asthma symptoms in women were also recorded; however this effect was not recorded in men with asthma. Eisner (2002) hypothesised that SHS exposure exacerbated asthmatic symptoms in women and possibly men; however it was unlikely that SHS exposure induced the onset of asthma in adults. Jaakkola et al. (2003) explored the development of asthma in adults due to occupational and residential SHS exposure in a large population based study in Finland. They suggested from their findings that total SHS exposure over the previous 12 months was significantly associated with an increased risk of new asthma cases, a dose-response pattern was observed.

Although evidence is currently inconclusive, it is suggestive that SHS has adverse effects upon the respiratory system. If this is the case then a major reduction in respiratory disorders could be achieved if exposure to SHS was significantly reduced.

#### 1.8.4 Mortality associated with second hand smoke in adults

Cardiovascular disease, lung cancer and respiratory disease are amongst the leading causes of death in the developed world. However, the body of evidence that specifically links SHS to premature death and disease in children and adults who do not smoke is not as substantial as the body of evidence focusing on morbidity.

Two studies examined mortality due to SHS exposure. Hill et al. (2007) analysed two large New Zealand cohort data sets of never-smokers and examined the relationship between SHS exposure within the home and mortality over the subsequent three years. Hill et al. (2007) found that never-smokers living with smokers had higher rates of cardiovascular, respiratory and overall mortality compared to those in smoke-free homes. However it was felt that these findings may underestimate the mortality rates as they only looked at the subsequent three years, thus death from diseases such as lung cancer, which have a lag time of more than three years, may not yet have been evident. Hill et al.'s (2007) findings pave the way for more longitudinal studies of mortality due to SHS exposure.

Hole (2005) conducted a report on behalf of the Scottish Executive which explored passive smoking and associated causes of death in adults in Scotland. The report concluded that SHS related mortality occurred predominantly via lung cancer, ischemic heart disease, stroke and respiratory disease. SHS exposure was associated with 1500 - 2000 deaths per year in Scotland, over 75 % of these occurring amongst women.

#### 1.8.5 Children's vulnerability to second hand smoke

The adverse health implications of SHS exposure upon adults have been briefly discussed. Children are also at risk of negative health implications from exposure to SHS. It was estimated that almost half of the world's population of children were involuntarily exposed to SHS at home (Samet and Yang, 2001). It could be argued that children were more vulnerable than adults to the dangers of SHS for a number of reasons.

Young children are often unable to remove themselves from exposed situations in the same way that an adult could, as their environments are often controlled by adults. As a child's nervous, respiratory and reproductive systems are still developing; this could make them more vulnerable to mutations occurring from exposure to carcinogens and toxic substances in SHS. Children could be less able to excrete these toxins or make toxic metabolites, thus the harmful chemicals could remain in their system, causing damage for longer (Polanska et al., 2006). It is therefore essential to investigate the dangers of SHS exposure upon children and devise methods of prevention to promote health in children.

#### 1.8.6 Respiratory disease associated with second hand smoke in children

It appears that the most common adverse effect is the impact upon a child's respiratory system; covering childhood asthma, pulmonary function and respiratory symptoms. Acute respiratory illness is the most common cause of morbidity in children throughout the world and a major cause of child mortality in many countries (Leowski, 1986). Children usually recover from respiratory illness;

however there may be long term consequences, such as increased susceptibility to illnesses in adulthood or reduced pulmonary function (Mok and Simpson, 1984).

The 2006 US Surgeon General report concluded that the evidence was sufficient to infer a causal relationship between parental SHS exposure and lower respiratory illness, cough, phlegm, wheeze, breathlessness, having asthma, onset of wheeze and a lower level of pulmonary functioning in children. In 2004 the SCOTH report reconfirmed its 1998 conclusions that children were at greater risk from residential SHS exposure which was strongly linked with increased risk of pneumonia and bronchitis, asthma attacks and decreased pulmonary function. These conclusions were affirmative of those drawn by the WHO's International Consultation on SHS and Child Health (1999).

Hovell et al. (1994) conducted a controlled trial exploring the impact that SHS exposure had upon children with asthma and found SHS exposure to be positively associated with increased prevalence of asthma, increased frequency of medication use, increased severity of asthma symptoms, increased number of acute exacerbations and respiratory tract infections and a reduction in pulmonary function in children with asthma. Bek et al.'s (1999) findings supported those of Hovell et al. (1994), reporting significantly reduced pulmonary functioning in children exposed to SHS at home. Schwartz et al. (2000) investigated the impact of SHS exposure on asthmatic children, compared to non-asthmatic children in Finland and found that asthmatic children had lower peak expiratory flow rate; a determinant of pulmonary function, and used their bronchodilator more frequently than unexposed children with asthma. A weak and insignificant relationship was found between SHS exposure and non-asthmatic children, suggesting that healthier children were less affected by SHS exposure.

Strachan and Cook (1998) and Gergen (2001) concluded however that although SHS exposure in childhood triggered asthma attacks and increased severity of asthma symptoms, it did not cause the development of asthma in individuals. Li et al. (1999) found that children who were exposed to SHS at home had a twice as high risk of having serious respiratory illness that required hospitalisation than



children living in smoke-free homes. This association was even stronger in the under two year olds.

SHS exposure has also been associated with an increased risk of both acute and chronic middle ear disease (Strachan and Cook, 1998).

#### 1.8.7 Behavioural problems associated with second hand smoke in children

The International Consultation on SHS and Child Health (1999) summarised that SHS exposure was associated with learning difficulties, behavioural problems and language impairment. Polanska et al. (2006) reviewed the literature and highlighted the increasing evidence that SHS exposure in children leads to negative behavioural and neuro-cognitive effects. Eskenazi and Castorina's (1999) review concluded that SHS exposure during the early developmental years may have small adverse effects on neuro development and behaviour. However the US Surgeon General (2006) reported that currently there was inadequate evidence to infer the presence or absence of a causal relationship between SHS exposure, cognitive functioning and behavioural problems among children.

#### 1.8.8 Foetal second hand smoke exposure from maternal smoking

A review of epidemiological studies by Polanska et al. (2006) estimated that 20-30 % of women actively smoked during pregnancy and that half of all non-smoking women were exposed to passive smoking during their pregnancy. This has been demonstrated to have a number of adverse health effects upon the foetus and child in the early years of life. A limitation of studying the effects of SHS exposure during pregnancy is the difficulty in distinguishing between pre and post natal exposure. Many women who smoke during pregnancy are likely to continue smoking during the early years of the child's life (Polanska et al., 2006).

Sudden infant death syndrome (SIDS), also known as cot death, is the most common single cause of death among infants between one month and one year in most developed countries (Anderson and Cook, 1997). SIDS is the sudden,

unexplained, unexpected death of an infant in the first year of life (American Academy of Paediatrics, 2005). Exactly how SIDS occurs is not completely understood, however a number of risk factors have been identified which increase occurrence, these include the mother smoking during pregnancy (US Surgeon General, 2004) and infant being exposed to SHS after birth. If these two factors were combined, which they often are, the risk of SIDS would be especially high (US Surgeon General, 2006). It was hypothesised that chemicals within the SHS affected the brain in a way that could lead to complications with the infants breathing (US Surgeon General, 2006). The US Surgeon General concluded in 2006 that the evidence was sufficient to infer a causal relationship between SHS exposure and SIDS.

Anders and Day (2000) concluded that active smoking during pregnancy reduced birth weight. Low birth weight has been associated with abnormalities during adulthood, such as increased risk of coronary heart disease, stroke, hypertension and type two diabetes (Barker, 1998). The US Surgeon General concluded in 2006 that the evidence was sufficient to infer a causal relationship between maternal smoking during pregnancy and a small reduction in birth weight.

Eskenazi and Castorina (1999) reviewed the research exploring any relationships between foetal SHS exposure and negative neuro-developmental and behavioural effects upon a child. They concluded that SHS exposure during pregnancy had a small adverse effect upon neurological and behavioural development. It was believed that foetal hypoxia could occur, leading to changes in brain development due to reduced blood flow to the foetus (Lehtovirta and Forss, 1978, Cole et al., 1972). Slotkin (1998) hypothesised that nicotine targeted specific neurotransmitters in the foetal brain which could lead to abnormal cell development, thus resulting in detrimental effects.

Other problems which could result from maternal smoking during pregnancy include increased risk of ectopic pregnancy, placental abruption, placenta praevia, premature rupture of the membranes (Castles et al., 1999) and decrease in pulmonary functioning (International Consultation on SHS and child health, 1999).

#### 1.8.9 Foetal second hand smoke exposure from maternal second hand smoke exposure

SHS exposure in non-smoking women during pregnancy can lead to reduced birth weight and decreased pulmonary function in the infant (International Consultation on ETS and child health, 1999). Exposure in pregnant women has been associated with increased levels of carbon monoxide, nicotine and cotinine in the mother, neonate and amniotic fluid. Thus suggesting that the foetus is in contact with the sidestream smoke and therefore the poisonous contaminants (Fortier et al., 1994).

SHS exposure during pregnancy has been linked with a decrease in the infants birth weight; even after allowing for maternal age, maternal height, sex of baby and gestation age (Rashid and Rashid, 2003; Windham et al, 2000). The size of the decrease in birth weight varied between studies, for example Rashid and Rashid (2003) and Eskenazi et al. (1995) estimated an average of 45g lighter than normal, where as Hegarrd et al. (2006) estimated 79g lighter.

Women exposed to SHS during pregnancy are also at a higher risk of giving birth to a small for gestation age infant (SGA). This risk increases consistently with duration and intensity of exposure (Fortier et al., 1994). SGA infants have an increased risk of perinatal death and long term health problems, such as cardiovascular disease, hypertension, raised cholesterol and non-insulin dependent diabetes (Rashid and Rashid, 2003).

### 1.9 Legislation to limit exposure to second hand smoke

The adverse effects of SHS exposure upon health are significant (Law et al., 1997). It has been widely concluded that SHS exposure and its adverse effects upon health are a major current public health issue (Bonita et al., 1999, SCOTH, 2004). Smoking in homes, workplaces and public areas makes SHS exposure almost unavoidable (Zaridze et al., 1998).

Prior to the introduction of smoke-free legislation in the UK, SHS exposure could occur in homes, workplaces, restaurants, bars, casinos and vehicles, amongst

other places (US Surgeon General, 2006) and strong public health action was overdue (Davis, 1997). Hackshaw (1998), Raitakari et al. (1999) and Vineis et al. (2007), amongst many others, proposed that legislation was needed which would stop smokers smoking in the presence of non-smokers at work and in social situations, as well as educating smokers about the dangers of smoking in the home. It was felt that this avoidable cause of mortality and morbidity amongst non-smokers needed to be reduced, if not eliminated (Hackshaw, 1998).

In light of the evidence new legislation which prohibited smoking in enclosed public places and workplaces was introduced in England on July 1<sup>st</sup> 2007, following on from similar legislation in Scotland (March 26<sup>th</sup> 2006), Wales (April 2<sup>nd</sup> 2007) and Northern Ireland (April 30<sup>th</sup> 2007). Similar legislation has also been implemented or is planned in many other countries and states across the world. Table 1.1 illustrated the countries, and in some cases regions, states or territories, that have implemented a comprehensive smoke-free legislation. The legislation in England, resulting from the Health Act 2006, prohibited smoking in all workplaces and public places which were enclosed or substantially enclosed and used as a place of work by more than one person. Further details on the English smoke-free legislation are included in Chapter 2.

Studies have found that prohibiting smoking in the workplace can significantly and rapidly improve the health of employees. It could also help smokers to reduce the amount that they smoke (Eisner et al., 1998). Smoke-free public places reduce the general public's SHS exposure, as well as creating an easier environment in which to quit smoking (Hackshaw et al., 2010) (see Chapters 6, 8 and 9). The US Surgeon General in 2006 concluded that workplace restrictions were effective in reducing all round SHS exposure and led to less smoking among workers.

It was anticipated that there would be objections to the smoke-free legislation from pro-smoking groups, arguing that freedom of choice should imply freedom to do things, eg. smoking, that others dislike (Tollison and Wagner, 1988). However in response to arguments such as this, the US Surgeon General stated “the right of smokers to smoke ends where their behaviour affects the health and well being of

others” (US Surgeon General, 1986, p. xiii). It is the right of non-smokers to breathe clean air and the duty of smokers not to pollute the air that others breathe.

SHS exposure is an avoidable risk factor for many diseases, there is no risk free level of SHS exposure. Eliminating smoking in indoor spaces protects non-smokers from SHS. By reducing children’s exposure to SHS, there will be an improvement in the overall health of children, adolescents and ultimately adults. Thus reducing morbidity and mortality and, overtime, leading to savings for the health services. It is for these reasons that many countries have chosen to introduce policies to protect individuals from the harmful effects of SHS.

## **1.10 Conclusion**

It would be difficult to deny that this modern tobacco epidemic is having an immense impact upon health. It is a challenge that professionals need to acknowledge and continue to fight. Tobacco use can be controlled; however, this will only be achieved via worldwide collaboration, so that vulnerable groups in the future, such as the young and those in developing countries, are not faced with an avoidable, human tragedy.

Tobacco smoking has been proven to be deadly; the dangers of smoking can not be stressed enough. It is the largest single cause of premature death in the UK and kills almost half of those who don’t stop smoking (Peto et al., 2000). High rates of smoking related morbidity and mortality will continue until smoking cessation and tobacco control efforts persuade all current smokers to quit. Richard Carmona, the US Surgeon General in 2004, stated “The science is clear: The only way to avoid the health hazards of smoking is quit completely or to never start smoking” (US Surgeon General, 2004). When someone quits smoking, the positive health effects are immediate and the benefits are long term. Risks of developing smoking related diseases are reduced and health in general is improved; smoking cessation saves lives.

Table 1.1: Comprehensive, enforced smoke-free legislation across the world

Country	Date of implementation and state, region or territory if legislation not introduced across entire country
Australia*	2004: Queensland
	2006: Tasmania, Western Australia, Australian Capital Territory
	2007: New South Wales, Victoria, South Australia
Bermuda	2006
Bhutan	2004
Canada*	2004: Northwest Territories, Nunavut Territory, New Brunswick, Manitoba
	2005: Saskatchewan, New Foundation and Labrador
	2006: Ontario, Quebec, Nova Scotia
	2008: Alberta, British Columbia, Yukon
France	2008
Guernsey	2006
Iceland	2007
Isle of Man	2008
Jersey	2007
Montenegro	2005
New Zealand	2004
Norway	2004
Republic of Ireland	2004
United Kingdom	2006 Scotland
	2007: England, Northern Ireland, Wales
United States of America*	1998: California
	2002: Delaware
	2003: New York
	2004: Maine, Connecticut, Massachusetts, Rhode Island
	2005: Vermont, Washington
	2006: New Jersey, Colorado, Hawaii, Ohio
	2007: Arizona, New Mexico, New Hampshire, Minnesota
	2008: Illinois, Maryland, Pennsylvania
	2009: Utah, Oregon, Montana
Uruguay	2006

\*denotes country where some states, regions or territories have not introduced smoke-free legislation

Source: Hackshaw et al. (2010)



## **Chapter 2: Tobacco Control Policy**

### **2.1 Introduction**

Research has suggested that there are three key processes which could help to reduce the prevalence of smoking. These are reducing recruitment to smoking, current smokers quitting and current smokers cutting down (Benzeval et al., 1995). Government can facilitate these processes by implementing tobacco control policies. There are many types of tobacco control policies which cut across a range of governmental departments and which cover all aspects of tobacco regulation from smoking cessation to smuggling, to regulation and packaging.

This chapter reviews the main areas of tobacco control policy and discusses policy developments in the UK, including the introduction of smoke-free legislation. It examines policies in the area of smoking cessation in some detail, beginning with a brief review of 'what works' in helping people to stop smoking. It then describes the development and effectiveness of National Health Services (NHS) stop smoking services (SSSs), concluding with a brief examination of existing literature on the implications of smoke-free legislation for smoking cessation.

### **2.2 Types of tobacco control policy**

The World Health Organisation (WHO) and the World Bank have defined what they believe to be the key tobacco control policies. They stated that these could 'reverse the tobacco epidemic and prevent millions of tobacco related deaths' (WHO, 2008, p 23). The WHO set out their MPOWER package in 2008, which highlighted six key policies. These were:

- **Monitor** tobacco use and prevention policies
- **Protect** people from tobacco smoke
- **Offer** help to quit tobacco use



- **Warn** about the dangers of tobacco
  - **Enforce** bans on tobacco advertising, promotion and sponsorship
  - **Raise** taxes on tobacco
- (WHO, 2008, p 23)

A similar set of six policies had been described in 2003 by the World Bank, who stated that these policies should be a priority for effective tobacco control. These were:

- Price increases through higher taxes on cigarettes and other tobacco products
- Prohibiting / restricting smoking in public and work places
- Better consumer information, including public information campaigns, media coverage and publicising research findings
- Comprehensive legislation prohibiting the advertising and promotion of all tobacco products, logos and brand names
- Large and direct health warning labels on cigarette boxes and other tobacco products
- Treatment to help dependent smokers stop, including increased access to medications

(World Bank, 2003)

In recent years the United Kingdom (UK) government has adopted many of the policies recommended by the WHO and the World Bank. These policies have been adopted in stages, with particularly rapid policy change occurring from 1997 onwards. In England, five key policy documents and guidelines, and other developments associated with these documents can be identified. These were

'Smoking kills: a white paper on tobacco' (1998), 'The NHS cancer plan' (2000), 'Choosing health: making healthier choices easier' (2004), the 'Cancer reform strategy' (2007) and 'A smoke-free future: a comprehensive tobacco control strategy for England' (2010). Each described policies and targets relevant to tobacco control.

This review of tobacco control policy describes and briefly evaluates the key UK policies in the chronological order in which they were implemented. Connections are drawn between the five key government papers where appropriate.

### **2.3 Children and Young Persons (Protection from Tobacco) Act (1991)**

The Children and Young Persons (Protection from Tobacco) Act (1991) aimed to protect children from the harms of cigarettes and other tobacco products. Tobacco products are readily available in supermarkets, off-licences, newsagents, local shops etc. The Act stated that it was the retailer's duty to ensure that these products were not sold to 'under-age' customers. In 2007, the 1991 Act was amended to increase the legal age to purchase cigarettes from 16 to 18 in England and Wales with effect from October 1<sup>st</sup> (similar changes were also introduced in Scotland and Northern Ireland in 2007). Under the 1991 Act retailers who were found to be selling tobacco to people under the age of 18 could face prosecution or could be prevented from selling tobacco products altogether. Enforcement of the law was undertaken at a local authority level. Despite the provisions of the 1991 Act, it was well known that sales of tobacco products to minors regularly occurred, with few repercussions ever reaching the retailer (British Medical Association (BMA), 2007). In 2002 18% of children aged 11 – 15 tried to buy cigarettes and of these, only 23% of these found it difficult to do so (Department of Health, 2004). However, in 2003 there were just 105 retailer prosecutions in England and Wales for this offence, of these 84 were found guilty and 73 were fined but only 11 of these were fined over £350 (Department of Health, 2004).

The 1991 Act also demanded signage near the point of purchase stating that 'it is illegal to sell tobacco products to anyone under the age of 18', and provided that

cigarettes were not permitted to be sold in quantities of less than ten. There has, however, been no formal evaluation of this law.

## **2.4 Smoking Kills: a white paper on tobacco (1998)**

In 1998 'Smoking Kills: a white paper on tobacco' was published. This was an important step in the tobacco control policy process, as it was the first UK white paper dedicated entirely to reducing tobacco use. It intended to improve the nation's health by setting three clear objectives; to reduce smoking among children and young people; to help adults, especially those in the most disadvantaged areas, to give up smoking; and to offer particular help to pregnant women who smoked (Department of Health, 1998). Smoking Kills pledged to invest 100 million pounds into tobacco control over the following three years and focused upon a number of key policy areas. These included increasing the tax on cigarettes above inflation, protecting young people from tobacco, introducing NHS SSSs and prohibiting tobacco advertising.

Smoking Kills set a number of targets. Three of the headline targets were; to reduce smoking among school children from 13% to 9% by 2010, to decrease adult smoking in all social classes from 28% to 24% by 2010 and to reduce the percentage of pregnant smokers from 23% to 15% by 2010 (Department of Health, 1998).

Smoking Kills also raised the issue of legislation to prohibit smoking in enclosed public places. However, at the time, it was concluded that people should have the right to choose whether they entered a smoky environment or not (Department of Health, 1998). Establishments were instructed to display signage stating whether they were 'non-smoking', 'separated', 'designated areas', 'ventilated' or 'smoking'. The paper claimed that ventilation systems removed carcinogens from the air, which has since been proven incorrect (Department of Health, 1998). It also stated that although regulation about smoking indoors would be tightened, there was no firm proposal to prohibit smoking in enclosed public places at the time (Department of Health, 1998).

As mentioned above, Smoking Kills also led the way for the development of NHS SSSs, pledging to invest 60 million pounds into building up these services over the following three years (Department of Health, 1998). The development of these services, and evidence about their effectiveness, are described in some detail later in this chapter.

## **2.5                   Taxation and smuggling**

A major focus of Smoking Kills was the issue of taxation and smuggling. Taxation is a key form of tobacco control policy which makes a significant difference to smoking rates, as well as bringing in revenue for the government (Benzeval et al., 1995). The white paper stated that the government would increase tobacco tax by a minimum of five percent above inflation per year. However this was not implemented by the government beyond 2001 and since then tax on cigarettes has not risen above inflation (Action on Smoking and Health (ASH), 2007a).

World Bank data suggests that the price of cigarettes and tobacco is the single most important determinant of levels of consumption (World Bank, 2003). This was supported in a review by Amos (2007), who found that higher taxes reduced the rate of uptake in young people and reduced consumption in adults, although not necessarily prevalence. It has been suggested that tax increases that raise the real cost of cigarettes by ten percent worldwide, could lead to 40 million people quitting smoking and could prevent five – 16 million tobacco related deaths (Ranson et al., 2002). This illustrates how low cost policy changes could induce large health gains.

However, tobacco is highly addictive and many people cannot simply choose to stop because of price increases, or because of knowledge of the health effects, for example. Often people from lower socio-economic status (SES) groups are highly addicted and find it difficult to quit (Jarvis and Wardle, 1999). If the price of tobacco increases, this may just mean that they spend more money on tobacco, meaning that they may lack funds for necessities, such as for food or utilities (Jarvis and Wardle, 1999). The taxation policy could be seen to ignore the personal, social and material dimensions of disadvantage which link people with smoking, thus those in poverty may be hit the hardest by the policy (Amos, 2007). The fact that tobacco

taxes can be repressive in this way has been used as one explanation of why consistent above inflation rises have not been maintained in the UK.

Levels of taxation were also linked to smuggling and the production of counterfeit cigarettes. Higher cigarette prices in one country encourage demand for imported cigarettes purchased in other countries with lower prices, which are then smuggled into the UK to avoid duty. Smuggling undermines government tobacco control policies, and in 2006 an estimated two and a half billion pounds were lost in tax revenue (HM treasury, 2006). Smuggled tobacco and counterfeit cigarettes were especially evident in areas of deprivation (Wiltshire et al., 2001). To tackle this problem, in 2000 the government launched a 200 million pound initiative against smuggling which contained a number of policy levers. This was estimated to have reduced the illicit market share to 16% in 2007 (ASH, 2007b). However the government continues to fight smuggling and counterfeit production and has pledged to extend its campaign to continue to reduce the size of the illicit tobacco market (ASH, 2007a).

## **2.6                    The National Health Service Cancer Plan: A plan for investment. A plan for reform (2000)**

In 2000, the government released the first NHS Cancer Plan (Department of Health, 2000). It set targets for the future and focused upon better prevention of cancer, better detection of cancer and better treatment and care. As smoking is the biggest single preventable risk factor for cancer, it featured significantly in the plan. Three commitments were at the heart of the plan, one of which related to smoking. This set new national and local targets to address the SES gap in smoking rates, which were in addition to the 'Smoking Kills' targets of reducing adult smoking rates from 28% - 24% by 2010. The new targets set included lowering smoking prevalence in routine and manual groups from 33% - 26% by 2010 (Department of Health, 2000).

## **2.7 Tobacco Advertising and Promotions Act (2002)**

Reducing or removing tobacco advertising is another key element of tobacco control that has been implemented in the UK. In 2002 the 'Tobacco Advertising and Promotions Act' was passed to further control the advertising and promotion of tobacco products.

The provisions of the 2002 Act were implemented in stages:

- February 2003 – It became illegal to advertise tobacco products on billboards, in newspapers and magazines. Direct mail was prohibited in May 2003
- July 2003 – Tobacco sponsorship of domestic sporting events was prohibited
- December 2004 - Regulations governing advertising at the point of sale came into effect. These limited advertising to one A5 sized advertisement per outlet
- July 2005 – The stopping of tobacco sponsorship of international events such as Formula One motor racing entered into force. In addition, regulations on brand-sharing came into effect

The 2002 Act had a significant impact upon the tobacco industry that had previously spent 100 million pounds on advertising annually (Benzeval et al., 1995). The tobacco industry argued that they did not use advertising to entice new smokers, but instead to influence choice of brand (Tobacco Advisory Council, 1992). Their argument was not accepted and tobacco advertising was prohibited.

Research conducted by Harris et al. (2006), as part of the International Tobacco Control (ITC) Four Country Survey, concluded that advertising regulations worked in a dose dependent manner. The more comprehensive the legislation, the lower the exposure to tobacco marketing influences. They found that in relation to the UK Tobacco Advertising and Promotions Act, the legislation reduced a smoker's exposure to tobacco advertising. This resulted in there being less salient pro-smoking cues, which may have influenced smoking behaviours.

In addition to the 2002 Act, smoking on television and in films has been reviewed over recent years. Regulations by the British Board of Film Classification (BBFC) and Ofcom meant that there was less portrayal of smoking on television. For example, smoking is avoided in children's programmes, and when shown it should not be a prominent feature, or shown as normal or attractive. However the rise of reality television shows, which were often broadcast before the 9pm watershed, meant that television programs often included footage of smoking. Consequently, this indirectly advertised or promoted smoking to the viewer (Department of Health, 2004).

## **2.8 Tobacco Products (Manufacture, Presentation and Sale) (Safety) Regulations (2002)**

In 2002, the UK implemented the 'Tobacco Products (Manufacture, Presentation and Sale) (Safety) Regulations' which were part of the European Unions Council Directive 2001/37/EC. The 2002 regulations focused upon the use of warnings on packets of cigarettes, the prohibition of descriptions such as 'light' and 'mild' and limited the maximum levels of tar, nicotine and carbon monoxide (CO) yields permitted (Tobacco Products (Manufacture, Presentation and Sale) (Safety) Regulations, 2002).

The directive stated that two warnings were compulsory on cigarette packets. A general warning, covering at least 30% of the packet, e.g. 'Smoking Kills' and an additional warning covering at least 40% of the packet, e.g. 'Smoking causes ageing of the skin'. The policy prohibited the description of products as less harmful than others, for example 'light' or 'mild'. The maximum yields were fixed and needed to be declared to consumers, for example ten mg of tar per cigarette, one mg of nicotine per cigarette and ten mg of CO per cigarette. This information needed to cover at least ten percent of the packet (Tobacco Products (Manufacture, Presentation and Sale) (Safety) Regulations, 2002). Tobacco products were also required to be identifiable and traceable by batch number.

Every two years, since 2005, a report about how the policy has been applied is submitted by each country to the European Parliament, Council and Economic and Social Committee for review (Tobacco Products (Manufacture, Presentation and Sale) (Safety) Regulations, 2002).

## **2.9 Choosing Health. Making healthy choices easier (2004)**

A public health white paper entitled 'Choosing Health. Making healthy choices easier' was published by the Department of Health in 2004. It focused on many aspects of health including exercise, sexual health and nutrition. Smoking featured significantly in this report, with the discussion of further developing tobacco advertising and promotion restrictions, NHS SSSs, smoke-free legislation and policies to reduce underage cigarette purchase. Interestingly, this policy document was published just three years before smoke-free legislation was introduced in England, and yet the message throughout was that a complete blanket legislation was not required, especially in licensed premises that did not sell food. The aim was that by the end of 2006 all government departments and NHS sites would be smoke-free, by the end of 2007 all enclosed public places and workplaces, except licensed premises, would be smoke-free and by the end of 2008 the new, unspecified, arrangements for licensed premises would be in place (Department of Health, 2004). However by mid 2007 smoking was prohibited in all enclosed public places and workplaces, including licensed premises (Health Act, 2006). This demonstrates how policy can change in a short period of time.

## **2.10 Cancer Reform Strategy (2007)**

In a follow-up to the 'Cancer Plan' (2000), the 'Cancer Reform Strategy' was published in 2007. Since the original 'Cancer Plan' was published, smoking rates had fallen, from 28% in 1998 to 24% in 2005. This reduction in smoking rates was attributed to the comprehensive anti-tobacco strategy, such as the legislation prohibiting tobacco advertising, increased education and health promotion and increased action on smuggling and illicit trading of tobacco (Department of Health, 2007a).



The 2007 strategy built on the previous plan and set a direction for the following five years. The overarching aim was that by 2012 the NHS cancer services would be among the best in the world. In relation to smoking, the new strategy pledged to maintain high tobacco prices, reduce the availability of illicit tobacco and to further regulate tobacco products (Department of Health, 2007a).

## **2.11 Smoke-free legislation (2006 - 2007)**

The smoke-free legislation, prohibiting smoking in enclosed public places and workplaces, was implemented in Scotland on March 26<sup>th</sup> 2006, in Wales on April 2<sup>nd</sup> 2007, in Northern Ireland on April 30<sup>th</sup> 2007 and finally in England on July 1<sup>st</sup> 2007. The law in each country was very similar; however there were some minor differences. The next section focuses upon the English legislation, which was introduced in the Health Act, 2006 (Health Act, 2006).

Smoke-free legislation aimed to protect people from the harm caused by exposure to second hand smoke (SHS). It also aimed to make it easier for smokers to quit, as well as sending a clear message to young people that smoking was harmful and that it was not a sociable activity (NHS, 2008). The legislation covered all workplaces and public places which were 'enclosed'. It specified that a place was 'enclosed' if the walls or the roof had more than 50% coverage. Some exemptions initially applied in settings such as prisons, nursing homes and in-patient psychiatric units. However, these settings were also workplaces and further provisions meant that they were to also become smoke-free. For example in-patient psychiatric units became smoke-free on July 1<sup>st</sup> 2008 (Smoke-free (Exemptions and Vehicles) Regulations, 2007).

Employers were ordered to comply with the legislation by prohibiting smoking in their work premises and work vehicles, 'No Smoking' signs were also required. The legislation was enforced by local authorities through their environmental health officers. Penalties could be issued from £50 - £2500 (Health Act, 2006). The Department of Health allocated 29.5 million pounds to support local authorities in England to help them undertake the enforcement work associated with the legislation (ASH, 2007a).

A monitoring report, published by the Department of Health in November 2007 concluded that there was a smooth transition into smoke-free legislation and that compliance increased over the first three months. Survey results suggested that 75% of adults supported the legislation and of the smokers surveyed, more supported (47%) than opposed (37%) it (Department of Health, 2007c). Between July and September 2007, a total of 275,993 premises and vehicles were inspected and 98% were found to be compliant (Department of Health, 2007c).

The Department of Health commissioned a number of studies to evaluate the impact of smoke-free legislation in England. This research included a study of changes to bar workers and customers' exposure to SHS, a longitudinal study to explore views, attitudes and experiences of smoke-free legislation, secondary analysis to examine health outcomes following the legislation's introduction, an analysis of the impact of the legislation on the hospitality industry and a mapping study looking at other UK research taking place in respect of the new legislation (Department of Health, 2007c).

There is emerging evidence of the implications of the smoke-free legislation in England, but evidence is limited as the legislation was implemented relatively recently. However smoke-free legislation has been in force in other countries for longer periods of time and published results of the evaluations of smoke-free legislation in other countries are available. Of particular relevance to England are the findings from the evaluation of smoke-free Scotland. Research from other countries is also outlined here.

#### 2.11.1 Smoke-free legislation in Scotland

As stated above, Scotland was the first part of the UK to introduce comprehensive smoke-free legislation following the example of Ireland in 2004. The Scottish Executive and Health Scotland (the national public health agency in Scotland) aimed to take an evidence-based approach to the development and introduction of the legislation. In order to achieve this they commissioned research on the likely impact of the legislation in advance of the policy being introduced. This included a

report that outlined the likely economic impact, as well as conducting a large public consultation on the nature and scope of the legislation. Finally, they commissioned an ambitious national evaluation that began in 2005 and reported its main results at an international conference in Edinburgh in September 2007 (Haw et al, 2006). The main outcomes reported were:

- A 17 % reduction in heart attack admissions to nine Scottish hospitals. This compared with an annual reduction in Scottish admissions for heart attack of three percent per year in the decade before the smoke-free legislation
- A 39 % reduction in SHS exposure in 11 year olds and in adult non-smokers
- An 86 % reduction in SHS in bars
- An increase in the proportion of homes with smoking restrictions
- No evidence of smoking shifting from public places into the home
- High public support for the legislation even among smokers, whose support increased once the legislation was in place

(ASH Scotland, 2008)

Elements of the Scottish evaluation are ongoing. However, a number of papers have been published and some of the main findings from individual studies are summarised here.

Semple et al. (2007) compared SHS levels in bars, before and after the introduction of the Scottish legislation. They concluded that there were high levels of compliance with the legislation leading to significantly reduced SHS levels. It was also noted that many smokers were congregating around the entrances to the bars to smoke.

Hyland et al. (2009) explored whether the Scottish smoke-free legislation had impacted upon SHS in hospitality venues, workplaces and in peoples' homes. They also explored whether there were changes in attitude towards the legislation

and whether these changes varied within SES groups. They concluded that the legislation resulted in dramatically reduced exposure to SHS in hospitality venues and workplaces. They found much increase in support for the legislation in the general public and no evidence of detrimental economic impact upon the hospitality industry. However levels of smoking cessation a year following implementation were similar to the rest of the UK where the legislation was not in place (Hyland et al., 2009).

Hilton et al. (2007) studied bar workers' attitudes towards smoke-free work environments. They found that bar workers had a positive attitude to the legislation before its implementation and became even more so afterwards. This positive change may have demonstrated a shift in social norms about the acceptability of smoking.

A study by Haw and Gruer (2007) explored exposure to SHS in non-smoking adults in public and private places after the legislation came into force. They measured a 39 % reduction in exposure, which was greatest in non-smokers from non-smoking households (49 % reduction) and the smallest in non-smokers living in smoking households (16 % reduction). The authors concluded that in order to reduce exposure further, smoking households needed to be supported with implementing smoke-free homes and cars.

In order to examine the implications of the Scottish legislation upon smoking in the home, Phillips et al. (2007) conducted qualitative interviews with a cross-section of 50 adults from a range of SES groups. All groups reported some form of restrictions in the home since the legislation, however often these restrictions were free to be lifted depending upon the specific circumstances. Children were often cited as the reason for imposing restrictions. They concluded that the legislation had not increased the amount of smoking within the home.

In support of this research, Akhtar et al. (2007) explored children's exposure to SHS after the legislation was implemented. They concluded that there was no evidence of increased SHS exposure associated with displacement of parental smoking into the home.

The implications of smoke-free legislation on smoking cessation will be explored in a later section of this chapter.

#### 2.11.2 Smoke-free legislation in other countries

Smoke-free legislation has also been implemented in a number of other countries including a large number of US states, parts of Australia, Canada, Italy, France, Norway and other countries (see Chapter 1). Some of these jurisdictions have produced published evaluations or studies of the impact. One of the most comprehensive evaluations outside of the UK has been in New Zealand. Conclusions from the New Zealand evaluation were similar to those in Scotland. New Zealand became smoke-free in 2004 after the 2003 Smoke-Free Environments Amendment Act was passed. An evaluation including a number of different studies concluded that there was strong and growing support for the legislation, that compliance was very high and there had only been five prosecutions at the time of the one year outcomes report. Self-reported SHS exposure fell from 20 % in 2003 to eight percent in 2006. There was an assumed increase in quitting behaviour six months after the implementation, demonstrated by an increase in the number of calls to quit lines and their evaluation reported that there was a substantial decline in the rates of 'socially cued' smoking (Ministry of Health, 2006).

### 2.12 Beyond Smoking Kills (2008)

To mark the ten year anniversary of the white paper 'Smoking Kills' ASH, funded by Cancer Research UK (CRUK) and the British Heart Foundation (BHF), published 'Beyond Smoking Kills'. The report reviewed the progress made in the previous ten years and set out a number of recommendations for the future. It highlighted the extensive and successful work that had been conducted in all areas of tobacco control over the preceding years; however it also emphasised the work that still needed to be carried out. Forty recommendations were made, which included, prohibiting branding of any kind on tobacco product packaging, increasing investment in research into the long-term impacts of nicotine and

promoting smoke-free homes and cars through national and local campaigns (ASH, 2008).

### **2.13            Graphic pictorial warnings (2008)**

On 1<sup>st</sup> October 2008, the UK introduced new graphic picture warnings to cigarette packets. The new warnings, which included pictures of rotting teeth and lungs, throat cancer, and a 'flaccid cigarette', replaced the written warnings on the back of packets, which were introduced by the Tobacco Products (Manufacture, Presentation and Sale) (Safety) Regulations (2002). By 1<sup>st</sup> October 2009, all cigarette packs sold in the UK featured the pictorial warnings. This transition period was to allow enough time for the introduction of the new warnings and for the sale of existing stock. All other tobacco products, except chewing tobacco, had to be sold with picture warnings by 1<sup>st</sup> October 2010. This amendment to the 2002 Act was implemented through the Tobacco Products (Manufacture, Presentation and Sale) (Safety) (Amendment) Regulations 2007 (Department of Health, 2009b).

### **2.14            Removal of the display of tobacco products (2009)**

The Health Bill 2009 introduced a new tobacco control policy which intended to protect children and young people from the initiation of smoking. This was instigated via a number of measures. A major policy proposed in the bill was to remove tobacco displays from sight, for example in newsagents and supermarkets. It was believed that removing tobacco displays would prevent the marketing of smoking, particularly to young people (Health Act, 2009). This policy will come into force in 2012 – 2013.

### **2.15            A Smoke-free Future. A comprehensive tobacco control strategy for England (2010)**

In 2010, the Department of Health produced a follow-up tobacco control strategy, 'A Smoke-free Future. A comprehensive tobacco control strategy for England'. This set out the government's plans for the future of tobacco control. There were three main objectives; to stop the inflow of young people recruited as smokers; to

motivate and assist every smoker to quit; and to protect families and communities from tobacco related harm. These objectives were very comparable to the targets set in Smoking Kills, which focused on reducing the number of young people who initiate smoking, reducing smoking prevalence in all adults and reducing levels of smoking amongst pregnant women. A number of key targets (now renamed 'aspirations') for the following ten years were set. These included, reducing smoking rates among 11 – 15 year olds to one percent or less and the rate among 16 – 17 year olds to eight percent by 2020. In addition, targets have been set to reduce adult rates to ten percent or less and to halve the smoking rates for routine and manual workers, among pregnant smokers and in the most disadvantaged areas by 2020. A further target was set to increase to two thirds the proportion of homes where parents are smokers but where the home is entirely smoke-free indoors by 2020 (Department of Health, 2010). As with 'Smoking Kills' and other government strategies, it was expected that new policies would be developed from this strategy in order to achieve these targets.

## **2.16 Tobacco control policy in comparative context**

Some elements of tobacco control policy, including requirements for labelling and product content were, as outlined above, set by the European Commission rather than the UK government. Tobacco control therefore operates in a wider policy context which is both European and global. Although there was not scope within this thesis to examine international tobacco control policies, it was worth highlighting two key issues. These were how UK tobacco control policy compares with that in other countries, and the existence of the Framework Convention on Tobacco Control (FCTC), of which the UK is a signatory.

Firstly, how does tobacco control policy in the UK compare with other countries? Although much remains to be achieved, policy developments in recent years have been, as outlined above, relatively rapid and the UK now has some of the strongest tobacco control policies in the world. In particular, evidence is available of how the UK compares to European countries.

In 2005 and again in 2007, an evaluative survey was conducted by Joossens and Raw which compared tobacco control policies in 30 European countries. Countries were scored on the Tobacco Control Scale, which measured how well they were implementing the six prioritised policies. The maximum possible score was 100, the countries were then ranked. In 2007, the UK scored the highest points with 93/100, receiving full marks for the policies relating to price, public information campaign spending and treatment. The report concluded that the UK was succeeding on all six of the key tobacco control policies as defined by the World Bank, but warned that investment must continue to sustain its comprehensive approach to tobacco control (Joossens and Raw, 2007).

Secondly, the UK is a signatory to the FCTC, which is the first international public health treaty. It is an 'evidence based treaty that reaffirms the right of all people to the highest standard of health'. Nations that adopt it, such as the UK, are 'determined to promote measures of tobacco control based on current and relevant scientific, technical and economic considerations' (Fong et al., 2006a). FCTC policies included increasing tobacco tax, promoting effective cessation programs, implementing legislation to prohibit the sale of tobacco to minors and combating smuggling (Fong et al., 2006a).

There is an ongoing evaluation of the key elements of the FCTC, conducted as part of the International Tobacco Control Policy Evaluation Project (ITC project). This is a multi-country research initiative which was set up to build on the evidence base of the FCTC and to inform the policies that are part of the FCTC (Fong et al., 2006a).

## **2.17 Smoking cessation policy**

Stopping smoking is the single most important thing a person can do for their health (United States Department of Health and Human Services (USDHHS), 1990). Smoking cessation benefits people of all ages, particularly those that are younger and who do not yet suffer from smoking related illnesses. A healthy adult who stops smoking before the age of 35 can have a normal life expectancy (Doll et al., 2004). However stopping smoking at any point, even if an individual is in their



70's, can lead to a significant improvement in life expectancy and overall health (Doll et al., 2004). Research has suggested that around half of all smokers in England make at least one quit attempt per year (West, 2009). There is therefore, considerable scope for the government to support smokers to stop, by funding, developing and/or facilitating effective services and treatments that encourage smoking cessation.

This part of the chapter examines, in brief, 'what works' in smoking cessation. It summarises the benefits of quitting and then describes the main types of smoking cessation interventions, which included brief advice, behavioural support and pharmacotherapy. It then describes the development of NHS SSSs from 1999 onwards and reviews evidence on their effectiveness. It concludes with a brief discussion of existing literature on the links between the introduction of smoke-free legislation and the demand for smoking cessation services, which is the main focus of this thesis.

## **2.18            The benefits of smoking cessation**

Unlike some health behaviours, at least some of the damage caused to the body by smoking can be reversed or reduced through cessation. When an individual stops smoking there are numerous benefits, some of which occur rapidly, as illustrated in Table 2.1.

Table 2.1: Beneficial effects of stopping smoking

<b>Time since quitting</b>	<b>Beneficial health changes that take place</b>
8 hours	Nicotine and CO levels in blood reduce by half, oxygen levels return to normal, circulation improves
24 - 48 hours	Nicotine and CO are eliminated from the body
48 hours	The decline in lung function and excess risk of lung cancer halts
3 – 9 months	Coughing and wheezing decline
1 year	Risk of heart attack reduces by half compared to that of a smoker
15 years	Risk of heart attack falls to the same as someone who has never smoked

Source: adapted from USDHHS (1990)

Despite the benefits of quitting and the fact that many smokers make a quit attempt, and in some cases multiple quit attempts, very few smokers succeed in stopping in any given year – around only two to three percent (West and Shiffman, 2004). The odds of a quit attempt being successful are significantly increased if smoking cessation interventions are used rather than ‘willpower’ alone (McEwen et al., 2006).

## **2.19 Smoking cessation interventions**

Stopping smoking is usually a difficult behaviour change to achieve and maintain, especially without the aid of a smoking cessation intervention. Hughes et al. (2004) found that in the UK, without the use of smoking cessation interventions, 30 % of quit attempts were abandoned within a day, 75 % within a week and less than five percent lasted for six months. The Department of Health has set guidelines for smoking cessation, for example, stop smoking interventions should reinforce motivation, the individual should set a quit date, the level of nicotine dependence should be assessed, a repertoire of coping strategies should be developed, onward planning, follow-up and relapse prevention should be offered (Department of Health, 2007b).

This brief section draws heavily on the most recent evidence of the effectiveness of smoking cessation interventions as reviewed by NICE in 2006 and 2007, resulting in the production of guidance for the NHS in November 2009 (Department of Health, 2009a). Effective interventions include brief opportunistic advice, individual and group behavioural counselling, telephone counselling and quit lines, pharmacotherapy and self-help materials (Department of Health, 2009a).

#### 2.19.1 Brief opportunistic advice

In the UK it was recognised that all clinicians have a role to play in encouraging quit attempts (West and Shiffman, 2004). All health care professionals (HCPs), for example dentists and district nurses, should enquire about the smoking status of their patients at least annually (West et al., 2000). This is called brief opportunistic advice, where the HCP delivers smoking cessation advice during their routine consultations (McEwen et al., 2006). This method of intervention involves providing advice as well as discussion, negotiation, encouragement and often referral to more intensive treatment (Department of Health, 2009a; Hackshaw and Bauld, 2009).

A method entitled 'AAA' is often demonstrated, this approach consists of Ask, Advise, Act. The HCP will:

- Ask and record smoking status; Smoker, ex-smoker, non-smoker
- Advise patient of health benefits; Stopping smoking is the best thing you can do for your health
- Act on patients response; Build confidence, give information, refer, prescribe (Department of Health, 2009a)

Very brief advice, such as this, can take as little as 30 seconds or last for up to about five minutes. Research suggested that 40% of smokers who were given brief advice made some form of quit attempt and two out of 100 would stop smoking (West et al., 2000). Brief advice on its own it may not always directly increase the

chance of a successful quit attempt, but it can be effective in triggering the smoker to seek further help and is ideally delivered as a first step, followed by referral to more intensive support (West et al., 2008). Brief opportunist advice is predominantly used to trigger a quit attempt, whereas the following interventions assist quit attempts.

#### 2.19.2 Behavioural support (individual and group counselling)

Behavioural support is an intervention that consists of discussion, advice and exercises that are intended to improve self-control and increase and sustain motivation for the smoker to stop smoking and to remain abstinent. Clients are taught how to cope with withdrawal symptoms and to escape from urges to smoke. (Department of Health, 2009a). The NHS Centre for Smoking Cessation and Training (NCSCT) competencies for delivering behavioural support include 'directly addressing motivation in relation to smoking and smoking cessation', 'maximising capacity and skills for exercising self-control' and 'promoting effective medication use and other supporting activities' (NCSCT, 2010). Cognitive behavioural therapy and motivational interviewing are often used alongside counselling (West et al., 2008; Hackshaw and Bauld, 2009). Structured behavioural counselling is usually provided alongside smoking cessation medications; nicotine replacement therapy (NRT), varenicline (Champix) or bupropion (Zyban) and follows a program, consisting of weekly meetings over a number of weeks (Department of Health, 2009a; Hackshaw and Bauld, 2009). There are a range of methods of delivering behavioural support, with two widely used methods being individual and group behavioural counselling (NCSCT, 2010).

Individual behavioural counselling is an intervention provided by a single SSS adviser to a single smoker, at a specified time and place. It is usually delivered face to face and involves the provision of behavioural support as described above (Department of Health, 2009a).

Group behavioural counselling is similar to individual behavioural counselling with respect to the content and intended outcomes of the behavioural support; however it is delivered in a different manner. It is a face-to-face intervention facilitated by

one or more SSS advisers, with a number of smokers at a specified time and place (Department of Health, 2009a).

Both types of behavioural counselling can increase abstinence rates at six months by three to seven percent above people only receiving brief opportunistic advice (Lancaster and Stead, 2005). There was no conclusive evidence to say which was more effective, group or individual behavioural counselling, although there is growing evidence that within NHS SSSs, group treatment may result in a higher proportion of successful quitters (West et al., 2008; Bell et al, 2007a).

Other delivery methods of behavioural support include family and couples support, open (rolling) group support, drop in support and telephone support (Department of Health, 2009a).

As mentioned previously, there are three main forms of pharmacotherapy, which can be prescribed to aid the quit process. These should ideally be used alongside the receipt of professional advice, encouragement and support, although they can also be used alone.

### 2.19.3 Nicotine replacement therapy

In the UK there are currently six types of NRT which have been licensed for use. These are the transdermal patch, gum, lozenge, sublingual tablet, inhalator and nasal spray. Each of these work by providing a 'clean' alternative source of nicotine. Smokers receive about half of the level of nicotine from NRT that they did from their cigarette, which alone is relatively harmless, without the tar and CO that they receive from smoking cigarettes. The nicotine provided from the NRT reduces the withdrawal symptoms felt by the individual and reduces urges to smoke. The nicotine is absorbed at a slower rate than from a cigarette, which reduces the chances of the individual becoming dependent on the NRT (McEwen et al., 2006; Hackshaw and Bauld, 2009).

Dosing for NRT often begins on the quit date and continues for eight to 12 weeks depending upon the product used (West and Shiffman, 2004). When NRT products

are used by a 15 a day smoker, it can increase the six month abstinence rates by five to eight percent above placebo (Silagy et al., 2004). It has also been shown that using more than one method of NRT together can increase six month abstinence rates by a further one to six percent; however it was inconclusive about which products were the best to combine (Silagy et al., 2004).

#### 2.19.4 Bupropion (Zyban)

Bupropion was designed as an atypical anti-depressant. Patients taking this medication for their depression showed signs of a reduced urge to smoke (Hughes et al., 2007). Bupropion was licensed for use in the UK in 2000 and is now prescribed for smoking cessation at a different dose than when prescribed as an anti-depressant. The exact mechanism of how bupropion works is unknown, but it is thought to increase the activity in the dopamine and nor-adrenaline pathways in the central nervous system (Hughes et al., 2007). Use of the medication should begin 8 – 14 days before the quit date and should continue for seven to eleven weeks. It can reduce the severity of withdrawal symptoms and can lower the urge to smoke (West et al., 2008; Hackshaw and Bauld, 2009). When used by a 15 a day smoker, bupropion can increase six month abstinence rates by six to ten percent above placebo (Hughes et al., 2007).

#### 2.19.5 Varenicline (Champix)

Varenicline is another form of smoking cessation medication. It was developed specifically for smoking cessation and was licensed in the UK in 2006. It is a partial agonist which is designed to act primarily on the nicotinic acetylcholine receptor (Cahill et al., 2007). Treatment lasts for 12 weeks and starts one to two weeks before the quit date (West et al., 2008; Hackshaw and Bauld, 2009). When taken correctly, it can reduce the individual's urge to smoke and can relieve cravings and withdrawal symptoms. As varenicline occupies the nicotinic acetylcholine receptor, some smokers experience less 'reward' from smoking if they smoke whilst taking the medication. When used by a 15 a day smoker, varenicline can increase six month abstinence by 19-20% above placebo (Cahill et al., 2007).

### 2.19.6 Other medications

A number of other medications have shown efficacy in supporting smokers to stop, although they are not widely used in the UK. These include Nortriptyline, a tricyclic anti-depressant, Clonidine, an adrenergic antagonist formally used to control high blood pressure and Cytisine, a partial agonist acting primarily on the nicotinic acetylcholine receptor (West et al., 2008).

Before prescribing any smoking cessation medication, the HCP must take into account the individual's medical history, any contraindications of the medication, their intention and motivation to quit and how likely it is that they will follow the course of treatment (Department of Health, 2009a). Of the pharmacotherapy's outlined above, only NRT is available to be bought over the counter; the other medications must be prescribed by a doctor, providing an opportunity to link their use with referral to behavioural support. In practice, however, many smokers may use medication without any other source of assistance to stop.

### 2.19.7 Other interventions

Other smoking cessation interventions are available. A number of these have been reviewed by NICE and show some evidence of effectiveness. These include:

- Self-help materials
- Telephone quit lines
- Mass media interventions
- Online support

Self-help materials included any manual or structured program, presented via written or electronic means. They were categorised as self-help materials if they could be used by an individual to quit smoking, without the help of a professional

(NICE, 2008). They aimed to increase motivation to stop, however there was not enough evidence to say how effective they were (West et al., 2008).

Telephone counselling and quit-lines provided encouragement and support over the phone to anyone wanting to quit or who had recently quit. This could either be proactive, where the advisor called the smoker, or reactive, where the smoker called the service (NICE, 2008).

Mass media campaigns could be delivered via many means, for example television, radio or national newspapers. They encourage smokers to quit and could trigger a quit attempt and/or encourage smokers to access effective forms of treatment (NICE, 2008).

New media such as the internet and text-messaging could also have a role to play in smoking cessation and evidence is emerging of its effectiveness, particularly in respect of online smoking cessation programmes. Shahab and McEwen (2009) conducted a systematic review of the literature, exploring the efficacy and acceptability of online interactive interventions for smoking cessation. They concluded that these forms of intervention could be effective in aiding cessation. However further research into this developing area is needed.

A selection of other interventions that are used in the UK to help people stop smoking include hypnotherapy, acupuncture and St. Johns Wort. However there was no good evidence to support the use of these interventions and for that reason they have not received NICE approval.

## **2.20            The development of National Health Service stop smoking services**

As outlined above, the UK government declared its intention to establish NHS SSSs in the 1998 white paper, 'Smoking Kills'. These services were intended to use the most effective forms of smoking cessation interventions available, of the kind described in the preceding section. This part of the chapter describes how they developed.



## 2.20.1 Establishment

The first reports of the dangers of smoking upon health were published in 1950 (Doll and Hill, 1950), (see Chapter 1). Yet between 1950 and 1998 there was very little formal support available for smokers who wanted to quit smoking in the UK. Smoking was seen by many as a habit, not an addiction, and although some smoking cessation clinics existed, they were often un-coordinated, minimal and failed to follow an evidence based program (McNeill et al., 2005b).

In 1998, 'Smoking Kills' recognised that smoking was an addiction, highlighting the benefits of smoking cessation for the individual and for the NHS and pledged to invest significant amounts of money into smoking cessation. Many tobacco control strategies were proposed, which had the potential to make more smokers attempt to quit, thus support for these individuals needed to be available. Funding to set up SSSs (originally called smoking cessation services) in England was pledged in the white paper at 60 million pounds over the initial three year development period (Department of Health, 1998).

SSSs were introduced in phases. In 1999, SSSs were established in 26 Health Action Zones (HAZs) in England only. 'A HAZ is an administrative area created by the government to try and reduce inequalities in health care provision, [they were] areas of marked deprivation' (McNeill et al., 2005b, p 4). HAZs included areas such as North Cumbria, Wolverhampton, East London and City, and all of Merseyside and Tyne and Wear (Department of Health, 1999). Overall, HAZs covered one-third of the English population and they were encouraged to trial other new health interventions, such as drug prevention and sexual health programmes, in addition to SSSs (Bauld et al., 2005). Following a relatively successful initial year of development, the services were rolled out across the rest of England and all of the UK (McNeill et al., 2005b).

## 2.20.2 Structure

Services were set up and run by Primary Care Trusts (PCTs), following guidance from the Department of Health. Services were to be free at the point of use and delivered by the NHS. Funding was initially allocated from a central government location and earmarked specifically for the services; however since 2003 PCTs have had control over their own funding (McNeill et al., 2005b). They were expected to treat any smoker motivated to quit, focusing especially on target groups; including pregnant women, young people and smokers from lower SES groups (Department of Health, 2007b).

SSSs were expected to provide evidence based treatment. These treatment interventions were to be delivered by HCPs and were predominantly in the form of intensive group sessions and via one to one support. Pharmacotherapy's were provided to clients; initially this was just in the form of NRT, with bupropion (Zyban) being introduced in 2000, and varenicline being introduced in 2006.

SSSs were generally run by a full time co-ordinator and specialist advisors; most services also provided treatment to smokers from within the local community, delivered by local HCPs, such as dentists and pharmacists, on a part time basis (McEwen et al., 2006) (see Chapter 4).

It was the co-ordinator's role to ensure that the treatment provided was evidence based and reflective of the needs of the local population. The co-ordinator was in charge of monitoring the service and evaluating its progression. They were also responsible for the publicity and advertisement of the service, as well as line managing the advisors and administrative staff (see Chapter 4).

Full time specialists and part time community advisors were employed to deliver the interventions, to provide intensive advice and support to those who were motivated to quit. SSSs were to be accessed via both self and general practitioner (GP) referral (McNeill et al., 2005b).

A wide range of venues were used to deliver smoking cessation interventions, from general practices and pharmacies, to commercial or rented venues to town halls, supermarkets and libraries (Bauld et al., 2005). Although the vast majority of services offered group and one to one support as the main method of delivery, other models were also adopted. These included telephone support and written self-help material (Bauld et al., 2005) (see Chapter 4).

### 2.20.3 Interventions

SSSs were originally encouraged to use two methods of intervention; these were intermediate level services and specialist smoking cessation clinics. The evidence for this approach came from clinical guidelines published in a supplement to the journal *Thorax*. These were initially published in 1998 and then updated in 2000, and again in 2008 (Raw et al., 1998; West et al., 2000; West et al., 2008).

When the services were first established, NRT was not available on prescription and could only be bought over the counter. Its cost was considerably higher than that of cigarettes. As a result, part of the development of the NHS services included the provision of one week's supply of NRT to smokers who were least able to afford it, being those on low incomes and eligible for free prescriptions. This increased to four - six weeks supply in 2000, however this 'voucher scheme' was criticised. Experts in the area of smoking cessation believed that NRT should be available on the NHS (McNeill et al., 2005b).

In early 2000, bupropion was introduced and was available on the NHS. This increased the pressure for NRT to also become available on the NHS (McNeill et al., 2005b). By April 2001, the complications of the NRT voucher scheme and the lack of a 'level playing field' created by the introduction of bupropion encouraged the government to make NRT available on prescription. Thus in 2002, NICE published guidelines stating that NRT and bupropion should both be used for smoking cessation (NICE, 2002). In 2007, NICE added varenicline to the list of smoking cessation medications (NICE, 2008).

From April 2005, the guidelines on interventions used by NHS SSSs in England became clearer and services were required to meet certain criteria in order to gain further funding. For example, all advisors needed to be appropriately trained, minimum data sets needed to be returned for each client and CO monitoring was required to validate cessation outcomes for the majority of clients (McNeill et al., 2005b).

## **2.21            The effectiveness of stop smoking services**

A growing body of evidence exists about the effectiveness of NHS SSSs. One type of evidence is the routine monitoring data collected by the services themselves and sent to the Department of Health. Other types of evidence of effectiveness come from published studies. In particular, those produced as part of the national evaluation in England. In addition, a systematic review of papers written about the services and their outcomes was conducted for NICE in 2006/07. This section describes key findings from the English evaluation and other papers included in the review.

In 2000, the Department of Health policy research program funded a national evaluation of the SSSs in England (McNeill et al., 2005a). The evaluation examined how the services were developed, how well they reached smokers, how well they effectively used different models of treatment, whether they were cost effective and finally how sustainable they were (Raw et al., 2005).

The main focus of the evaluation were the outcomes achieved by the services, although the study also included a process evaluation component. This included two national surveys of service co-ordinators to learn about service development and structure, and in-depth interviews with service staff in two English regions (Trent and the South-west). This process evaluation concluded that the services faced a number of barriers during their development, such as short term contracts deterring HCPs from applying for positions, few available training courses which meant that the services lacked consistency in the interventions that were provided and NRT taking a number of years to be available on the NHS (Coleman et al,

2005; Bauld et al, 2005). However the evaluation also argued that the services did well to develop in the professional manner that they did, in the face of time pressures and targets (Raw et al., 2005).

#### 2.21.1 Accessing disadvantaged smokers

SSSs are available to all smokers who are motivated to stop smoking; however government targets mean that they are directed to especially focus upon young people, pregnant women and smokers in low SES groups. The evaluation found that despite having little guidance, by 2002 all services were trying to target smokers in low SES groups, 99% were targeting pregnant women and 75% were targeting young smokers (Pound et al., 2005).

A challenge faced by the services was achieving the right balance between reaching targets and accessing priority groups. The evaluation concluded that the services were successful at reaching and treating smokers from low SES groups (Chesterman et al., 2005). This was due to the variety of approaches that they used such as basing smoking clinics in primary care venues in low SES areas and training local people as lay advisors (Raw et al., 2005). One part of the evaluation examined data from clients treated in 19 health authority areas and found that the numbers of smokers setting a quit date from more disadvantaged neighbourhoods exceeded those from more affluent areas. This suggested that the services were, unlike most public health interventions, reversing the 'inverse care law' (Chesterman et al, 2005).

Since the evaluation was published, a number of other studies have found similar evidence in different parts of the UK (Bell et al, 2007a). For example, Lowey et al. (2002) found that smokers setting a quit date in the Northwest of England were predominantly from deprived areas, thus Northwest SSSs were accessing disadvantaged smokers. Similarly the North East Public Health Observatory (NEPHO, 2005) found that a higher percentage of smokers from deprived areas were setting quit dates. However the West Midlands Public Health Observatory found that in Birmingham and the Black Country, smokers that lived in the most

deprived areas, were the least likely to access SSSs (Baker et al., 2006). There was therefore some variation across different SSSs.

It has repeatedly been noted that although services in the most deprived areas were reaching more smokers, they were achieving lower cessation rates than in less deprived areas (Bell et al., 2007a). Bauld et al. (2007a) reviewed this issue and concluded that although short term cessation rates were lower in disadvantaged areas than in more affluent areas, overall more smokers from deprived areas were being treated. SSSs were therefore contributing to reducing inequalities in health caused by smoking.

#### 2.21.2 Outcomes

The national evaluation examined cessation outcomes at two points in time – four and 52 weeks. The four week study conducted found that, on average, 53 % of those setting a quit date were abstinent (CO-validated) at four weeks. This percentage increased with age. In 16 – 30 year olds, 41 % were abstinent at four weeks, compared with 65 % of the 61+ age group. Women were found to use the services more, but to have lower success rates. Those that were more nicotine dependent were less likely to stop and those that were more motivated were more likely to be successful. Despite the evidence of success in reaching disadvantaged groups outlined above, quit rates were lower in poorer smokers (Judge et al., 2005; Bauld et al., 2007b; Murray et al., 2009).

The 52 week study found that, on average 15 % of those who set a quit date were abstinent (CO-validated) at one year. This result was in line with clinical trial evidence on the longer term effectiveness of interventions that combined behavioural support with NRT (Ferguson et al., 2005). The study also found that relapse between four and 52 weeks most commonly occurred in the first three months (39 %), with this percentage reducing over time. As with short term outcomes, those who were more addicted and in lower SES groups were less likely to remain abstinent at one year. Older smokers and those who were more motivated to quit were more likely not to be smoking after a year (Ferguson et al., 2005). The evaluation also found that, in the two areas (Nottingham and North

Cumbria) included in the four and 52 week outcomes studies, 97 % of clients were receiving one to one treatment and three percent were receiving group treatment. This reflected the move away from group based behavioural support that was happening in the services at the time. This was a significant finding as this was not how the services had been set up to run, it could be seen that practice was moving away from policy.

Since the evaluation was published, a relatively small number of other studies have been produced that examined outcomes from the services. A review conducted by Bell et al. (2007a) concluded that although the services were proving to be relatively successful with short term outcomes, there was much variability between services. This may have reflected differences between the quality of different services, as well as questioning the reliability of the data. Bell et al. concluded that it was partially due to the different methods by which success was measured. This variation was also evident with long term outcomes.

It is not a government requirement to collect long term outcome data, and it is often difficult to do so due to the numbers lost to follow-up over the 52 week period. However a number of studies have aimed to collect this data. Watt et al. (2005) followed up over 500 clients in Cornwall and the Isles of Scilly; they found that 23 % were abstinent at 52 weeks; however none of these clients were CO-validated. Smith (2006) recorded long term outcomes in quitters in Blackpool, Fylde and Wyre, using a similar sample size to Watt et al. and found 17 % were abstinent at 52 weeks, but again CO-validation was not conducted. Jones et al. (2005) recorded a 19 % level of abstinence at 52 weeks in Kingston and Richmond, however the sample size was significantly smaller and CO-validation was again not used. Variation in these outcomes was likely to have occurred due to high attrition rates, self-reported outcomes, differences in who the sample were for example, lower SES groups or older populations and different original sample sizes.

In line with the national evaluation findings, Bell et al. (2007a) concluded that outcomes varied with sex, age, SES and the level of addiction of the clients. They also concluded that the effectiveness of the service can be influenced by the treatment model used. Some evidence suggested that group based services may

be more effective than one to one interventions (Judge et al., 2005; McEwen et al., 2006) and that pharmacy based services may reach large numbers of smokers but achieve poorer outcomes than other models (Bauld et al., 2009). It was noted however, that much more research was needed to compare models of treatment and further examine outcomes for different groups of smokers.

### 2.21.3 Cost effectiveness

NHS SSSs have repeatedly been shown to be cost effective. The benchmark set by NICE, upon which they decide if a new health care intervention is cost effective and will be approved, is £20,000 per life year saved. The national evaluation found that SSSs cost £684 per life year saved and this was even lower (£438) when future savings in health were considered (Godfrey et al., 2005).

It could therefore be seen that despite barriers during their introduction, SSSs were implemented successfully and continue to provide an effective service which continues to improve.

## 2.22 Smoke-free legislation and smoking cessation

SSSs may experience a rise in client demand if the number of people wishing to stop smoking increases. Observations of, and research conducted within, other countries suggested that one way to increase the number of people wishing to quit smoking is through introducing smoking restrictions and legislations (Borland et al., 1990; Stillman et al., 1990; Borland et al., 1991; Fichtenberg and Glantz, 2002; Brownston et al., 2002). Smoke-free environments can provide an encouraging opportunity for smokers to cut down or quit (Chapman et al., 1999). Chapman and colleagues (1999) estimated that the consumption of cigarettes in the UK would fall by 3.5 cigarettes per day per continuing smoker if complete smoke-free workplace legislation was introduced. Moher et al., (2005) concluded that workplace smoke-free legislations could reduce consumption during the working day. This was supported by findings in a systematic review by Fichtenberg and Glantz (2002) who calculated a reduction in consumption of 3.1 cigarettes per day per continuing smoker. They additionally calculated an absolute fall in prevalence of four percent,



if smoke-free workplace legislation was introduced UK wide. The review also concluded that these reductions would remain stable over time.

There is some evidence that public and workplace smoke-free legislation decreases consumption and can increase rates of smoking cessation (Bell et al., 2007b). Elton and Campbell (2008) investigated the impact of the English smoke-free legislation on smoking prevalence in the English city of Bury. A pre and post legislation postal survey was completed by approximately 4000 randomly selected participants. They concluded that although the legislation did not appear to have any substantial impact upon smoking prevalence, it may have a positive impact upon the proportion of heavy smokers in Bury (Elton and Campbell, 2008). Although smoke-free legislation has been introduced in a number of countries, the impact of smoke-free legislation on quit services had only been systematically examined in Scotland and New Zealand. This research is discussed below, along with other related evidence from other smoke-free countries.

#### 2.22.1 Smoke-free legislation and smoking cessation in the Republic of Ireland

On 29<sup>th</sup> March 2004, the Republic of Ireland was the first country in the world to implement a comprehensive smoke-free legislation in all enclosed public and work places. The ITC project researched the impact of this legislation upon a number of different factors. They found that 46 % of smokers said that they were more likely to quit and 60 % were more likely to cut down since implementation. However it must be considered that intention to quit and intention to cut down does not automatically equate to quitting or cutting down. Of those smokers who had quit post-legislation, 80 % said the law had helped them to quit and 88 % said that it had helped them to stay abstinent (Fong et al., 2006b). A 16 % drop in cigarette sales was observed following the introduction of the legislation (Allwright, 2004). This drop in sales may have occurred as a result of the legislation; however it may have occurred due to a variety of alternative factors, such as an increase in the cost of cigarettes or the implications of other tobacco control measures in place at the time. The report concluded that the absence of smoking in public venues encouraged quit attempts and increased the likelihood of a successful quit.

### 2.22.2 Smoke-free legislation and smoking cessation in Norway

On 1<sup>st</sup> June 2004, Norway introduced a comprehensive smoke-free legislation. An evaluation was conducted by Lund (2007) to explore the impact of the new legislation.

A reduction was found in the amount of smokers among employees, from 52 % pre-legislation to 47 % post-legislation. This reduction was fairly small however it was statistically significant. Before the legislation was introduced smokers averaged 14.7 cigarettes per day, this reduced to 13.3 per day post-legislation.

A significant increase was noted in the number of smokers attempting to quit. Pre-legislation, 28 % of smokers said they had made a quit attempt in the previous 12 months, this increased to 44 % post-legislation. However despite a slight reduction in the countries overall smoking prevalence (29 % – 24 %), there was not a statistically significant decline in prevalence (Lund, 2007). Smokers may have reported trying to quit however this does not always necessarily result in a sustained quit attempt. A ten percent drop in cigarette sales was noted following the introduction of the legislation (Directorate for Health and Social Affairs, 2005).

### 2.22.3 Smoke-free legislation and smoking cessation in New Zealand

On 10<sup>th</sup> December 2004, New Zealand introduced a complete smoke-free legislation in public and work places. Research suggested that following the introduction of the law, socially cued smoking, for example in bars, restaurants and cafes, substantially declined (Edwards et al., 2008). The number of calls to quit lines increased in comparison with the previous year (Edwards et al., 2008) and the number of monthly NRT vouchers issued also increased (Wilson et al., 2007). However there was no evidence that the legislation led to a reduction in consumption and overall prevalence. Edwards et al. (2008) concluded that the legislation had a positive impact upon smoking behaviour, which may in turn have led to a reduction in prevalence.

#### 2.22.4 Smoke-free legislation and smoking cessation in Scotland

Smoke-free legislation in Scotland, introduced in March 2006, may also have had a positive impact on smoking cessation. The national telephone quit line 'Smokeline' was said to have received a considerable increase in demand following the legislation's implementation (Howie et al., 2006).

Scottish SSSs also reported that they experienced a substantial increase in demand for their services. For example, it was reported that in Fife the number of people making a quit attempt had doubled and the Fife SSS was inundated with referrals from would-be quitters (Ross, 2006). The Grampian SSS reported a 72 % rise in demand immediately following the introduction of the legislation (Brodie, 2006).

Fowkes et al. (2008) explored the trends in smoking cessation in Scotland before and after the introduction of the legislation. They found that in the three months preceding the introduction of the legislation, there was an increase in the numbers of smokers giving up. However the numbers of smokers giving up in the later months of 2006, following implementation of the legislation, were lower than had been seen in previous years (Fowkes et al., 2008).

This finding was supported by Lewis et al. (2008) who reported an increase in over the counter sales of NRT in the early months of 2006, being the months preceding and around the time of the introduction of the legislation. However this increase in NRT sales was not sustained in the later months of 2006 (Lewis et al., 2008).

Although the Scottish evidence suggests a change in smoking and quitting behaviour around the time that the smoke-free legislation was introduced, there was no detailed examination of cessation attempts or outcomes conducted in Scotland at that time.

#### 2.22.5 Smoke-free legislation and smoking cessation in other countries

In New York City, smoking prevalence fell from 21 % to 11 % following the introduction of the city's smoke-free legislation. However allocation of cause for this decline was complicated by other influential factors rather than just the smoke-free legislation (McNeill, 2007).

The public smoke-free legislation in California led 52 % of quitters to say that the law had made it easier for them to stop and 69 % of those who continued smoking said that the law had made it easier to reduce the amount that they smoked (California Department of Health, 2004).

Early findings from Italy suggested that self-reported prevalence had fallen by two percent since the introduction of its smoke-free legislation (Gallus et al., 2006).

Evidence is only beginning to emerge to illustrate the impact of smoke-free legislation on smoking cessation. However the evidence that is available clearly implies that smoke-free legislation may have a positive effect upon smoking behaviour and can lead to increased levels of smoking cessation. A recent Cochrane review identified 13 studies that included tobacco consumption as an outcome and all but one of these identified a reduction in consumption following the introduction of smoke-free (Callinan et al., 2010)

Different methodologies and outcome measures can make it difficult for comparisons between countries and studies to be made however a review of 19 studies found a link between the strength of the smoke-free legislation and changes in smoking behaviour. Countries with more comprehensive law, such as in England, led to more positive reductions in smoking behaviour (International Agency for Research on Cancer (IARC), 2009).

Prior to the introduction of smoke-free legislation in the UK, smoking prevalence was static at 25 %. It was estimated that comprehensive public and workplace smoke-free legislation could reduce this to 23 % (West, 2002). It was therefore predicted that the English smoke-free legislation which prohibited smoking in

enclosed public and work places would increase the amount of people wishing to stop smoking, thus in turn increasing the demand for English SSSs.

## **2.23 Conclusion**

Tobacco control policies aim to tackle smoking from many different angles. Where evaluations have been conducted, they demonstrate that tobacco control policies are successful at reducing smoking uptake, reducing prevalence and changing attitudes towards the use of tobacco.

NHS SSSs are well established in the UK. It is the only country in the world with a national, free at point of use smoking treatment service. SSSs play a key role in tobacco control policy and continue to be seen as a cornerstone of tobacco control strategy. The remainder of this thesis examines the work of these services in more detail and explores how smoke-free legislation has affected them and the smokers who seek their help to quit.



## **Chapter 3: Scope Of The PhD**

This research has two key aims:

- To assess the implications of England's smoke-free legislation, which prohibits smoking in enclosed public places, for National Health Service (NHS) stop smoking services (SSSs)
- To examine the capacity of SSSs to respond to an increase in demand for their service and explore the implications for policy and practice, following the introduction of the smoke-free legislation in England

The first two chapters of this thesis introduced key literature which provides a context for this PhD. These literature review chapters explored previous research in the area, allowing for critical discussion, setting the scene for the later empirical and theoretical chapters of the thesis.

The opening chapter, **Chapter 1**, provided a brief history of tobacco, and then focused upon smoking prevalence in the UK and rest of the world, highlighting differences between specific groups of smokers. The health consequences of smoking were discussed, illustrating the multiple and varied negative effects of tobacco upon the body. Second hand smoke (SHS), its characteristics and its health implications were discussed. This led to a brief introduction of legislation to limit exposure to SHS.

**Chapter 2** followed on from the previous introduction into legislation to limit SHS, with a detailed review and critique of tobacco control policy and developments in the UK. Smoke-free legislation was examined in detail, focusing upon related research from smoke-free countries worldwide. Policies to assist smoking cessation were explored and the development and effectiveness of NHS SSSs were described. The chapter concluded with a national and global look at the

implications of smoke-free legislation upon smoking cessation, an overarching theme of the PhD research.

The first empirical research appears in **Chapter 4**, which describes a national survey of English NHS SSS co-ordinators conducted between March and May 2007, the months preceding the introduction of the English smoke-free legislation. Chapter 4 intended to establish conclusions which would contribute to achieving the first overarching aim of the PhD. In order to establish how the legislation impacted upon the SSSs it was important to have a baseline measurement of how they were functioning prior to implementation. In addition, it intended to examine how they SSS co-ordinators felt they were going to cope with any changes resulting from the introduction of the legislation. The survey aimed to gain an insight into English SSSs, and to understand their structure and functioning in the run up to the smoke-free legislation in England. Additionally it aimed to gather baseline data for a subsequent follow-up national survey. Data was collected via a number of closed ended questions, along with some free text responses, which allowed for further detail to be recorded. The survey also examined how the SSSs were preparing for the smoke-free legislation and their perceived ability to cope with related changes within the services. Eight broad topics were explored: information about the SSS co-ordinator; information about the SSS; demand for services; coping with demand; training; workplaces; publicity and reaching target groups. Data were initially analysed using descriptive statistics and frequencies, followed by correlations, simple regressions and t-tests. A total of 132 co-ordinators responded, a 77 % response rate.

**Chapter 5** outlines results from a national survey of NHS SSS co-ordinators conducted ten months following the introduction of the smoke-free legislation in England, in May – June 2008. Chapter 5 allowed direct comparison with findings from the previous chapter to provide evidence for both overarching aims of the PhD. To establish whether the smoke-free legislation had impacted upon the SSSs, the ‘before’ and ‘after’ national surveys allowed for changes within the services to be identified. The chapter additionally explored how well the services had coped with any changes and whether they had sufficient capacity to maintain the quality of service that had been illustrated in Chapter 4. The aim of the survey



was to understand the impact of the smoke-free legislation for English NHS SSSs. The online survey explored the structure and functioning of the SSSs in the period following the legislation's introduction, allowing for comparison with data collected in the similar survey in March – May 2007, reported in Chapter 4. The second survey explored: demand for the SSSs; funding and staffing; service delivery and training; and service profile and preparation for the legislation. Analysis of the data consisted of descriptive statistics and frequencies, general estimating equations (GEE), correlations, t-tests and analysis of variance (ANOVA). A 57% response rate was achieved, with 86 co-ordinators completing the survey.

Qualitative data is reported in **Chapter 6**, through a study that intended to gather a more detailed understand of the SSSs and their staff. In order to understand how the smoke-free legislation impacted upon the SSSs and how well they were able to cope with any change in demand for their service, it was important to gain personal insight from a selection of SSS staff. Chapter 6 explored the functioning of SSSs from the perspective of staff and examined their opinions of, attitudes towards and experiences of the smoke-free legislation. In-depth semi-structured interviews were conducted with 14 SSS staff and co-ordinators from two SSSs. General questions about the staff and the SSS, smoke-free legislation, career plans and smoking cessation were discussed. Interviews were conducted in June and July 2008, 12 months following the introduction of the legislation. Data was analysed thematically using the framework approach.

**Chapter 7** is a theoretical chapter, focusing on the theory of cognitive dissonance. This chapter exploring the constructs of cognitive dissonance theory is placed in this location of the PhD as an introduction to the following chapter, which explored behaviour of recent ex-smokers and smokers in the process of quitting following the introduction of smoke-free legislation. Cognitive dissonance is used as a theoretical base to explain some of the behaviours demonstrated in Chapter 8. Cognitive dissonance theory is suitable to explain these smoking behaviours as they often fit the four criteria which need to be satisfied in order for dissonance to occur; The inconsistent behaviour needs to be freely chosen, there has to be commitment to the behaviour, some adverse or undesired consequence needs to result from the behaviour and the consequence needs to have been foreseen or

foreseeable. It is critical to the PhD to understand the impact of the smoke-free legislation upon recent ex-smokers and smokers in the process of quitting, and what implications it had upon their smoking and quitting behaviour. The chapter outlines the origins of the theory, beginning with work by Festinger in 1957 and discusses research that supports the theory, along with evidence of cognitive dissonance in practice. Different variations and critical approaches to cognitive dissonance are explored. Examples are provided throughout this chapter of how cognitive dissonance relates to smoking behaviour.

The aim of **Chapter 8** was to gather knowledge about the experience of attending a SSS, to understand the process of quitting smoking from a smoker's perspective and to explore the implications of the smoke-free legislation for those people who were trying to quit smoking. It was relevant to understand what the smoke-free legislation meant to smokers and those in the process of quitting in order to fully comprehend the impact of the legislation, not just for the SSSs, but also for their clients. Seventeen semi-structured interviews with recent ex-smokers and smokers in the process of quitting from one English SSS were conducted. The interviews investigated individual's smoking behaviour, their experiences of NHS SSSs and their past and current attitudes towards smoke-free legislation. Interviews were conducted in November 2008, 16 months following the introduction of the smoke-free legislation. The framework approach was employed to analyse the interview data thematically, using the theory of cognitive dissonance as a theoretical base.

Research reported in **Chapter 9** aimed to examine quit attempts in England in response to the introduction of smoke-free legislation. This research allowed for an examination of how smoking and quitting behaviours in England had been affected by smoke-free legislation. This chapter concluded the empirical research within this PhD, thus the impact of the smoke-free legislation had been explored from a functional perspective for SSS, a personal perspective from SSS staff and clients and a national perspective, in terms of the numbers of smokers and quitters. The chapter illustrates a collaborative piece of research between the author of the thesis and researchers at University College London (UCL). Face to face interviews were conducted between January 2007 and December 2008 with

10,560 adults, all of whom had reported smoking in the previous 12 months. Interviews explored intentions to quit smoking and quit attempts in response to the introduction of the smoke-free legislation in England. Quantitative data collected during these interviews were analysed using chi-squared tests and t-tests.

Finally **Chapter 10** combines findings from the whole PhD, leading to discussion under four key headings: NHS SSS structure and development; interactions between NHS SSSs and smoke-free legislation; quit attempts, smoking cessation and smoke-free legislation and smoke-free legislation and the smoker. Final conclusions are drawn. Following this, reflections on the research are made and recommendations for policy and practice are outlined.

### 3.1 Multi-method research

This was a 'multi-method' PhD, consisting of both qualitative and quantitative research (Morse, 2003). The different research methods were not combined or transformed into a singular method, but instead they independently answered specific sub-questions within the overall aims of the thesis. Bryman (1992) suggested considering the qualitative and quantitative components as representative of different blocks of data collection that are interwoven to complement each other. Morgan (1998) explained that with this form of research, the strengths of one method can enhance the performance of another. Baum (1995) suggested that methods for health research should be diverse and selected to suit the specific topic and population being investigated. Thus in the current research, where there were a variety of populations involved, multi-method research techniques were appropriate. It is the different strengths and weaknesses of both approaches, as discussed below, which form the rationale for their integration (Bryman, 1992).

### 3.2 Quantitative methods

Three pieces of research were conducted using quantitative methods, two self-administered online surveys and a face to face structured questionnaire. Surveys and questionnaires are the most common quantitative methods of collecting

information from a sample of the population. They intend to describe populations, study associations between variables and to establish trends. Surveys and questionnaires allow for data to be collected accurately and precisely and in a way that, if repeated at another point in time, the results would be comparable. Large samples can be covered, statistical inferences can be made and generalisations can be defined (Bowling, 2006).

For the national surveys, sampling was not appropriate as all SSS co-ordinators were approached. However, the face to face structured questionnaire intended to gather a sample from all smokers in England over the age of 16, thus a stratified random sampling approach was employed. This is a method of increasing the precision of a sample and thus guarding against obtaining, by chance, an unrepresentative sample of the population (Bowling, 2006).

The questionnaire and surveys could be described as descriptive, because they collected information from a population and descriptive statistics were calculated. They were also cross-sectional, as they collected data from the population at one point in time, and observational, as the population was observed not tested (Bowling, 2006). All three asked the respondents to think retrospectively as well as prospectively about behaviour, attitudes and events. There was the potential that recall bias could have occurred through distortion over time, thus to overcome this, the questions were designed so the time references were as short as possible and recall bias was minimised. Questionnaires and surveys are relatively economic methods in terms of time and resources, unambiguous data can be collected from large numbers of people relatively quickly, resulting in standardised data that can be easily coded (Bowling, 2006).

A weakness of questionnaires and surveys is that it is difficult to establish the direction of any associations found, thus cause and effect cannot be implicated (Bowling, 2006). However associations can be formed and using relevant literature and further complementary research, conclusions can be drawn. A further weakness was that multiple choice questions, as used within the research, could have meant that respondents were sometimes 'forced' to choose an answer that may not have fully represented their view. Additionally, respondents may not have

shared the same perspective of a word, thus in theory they may have been answering different questions although the question was written in the same way for each respondent (Bowling, 2006).

Collecting data via the online self-administered surveys had both advantages and disadvantages. There was little social interaction with the researcher, which could have removed social desirability and interviewer bias, meaning the respondents did not provide the answer that they felt was expected. There was also more anonymity, so responses were more likely to be honest. However, the questions needed to be straightforward, so that the co-ordinators did not need the researcher to further explain what was required of them. Additionally there was little control over who completed the survey, others present at the time of completion may have influenced the co-ordinators answers.

A systematic review by Edwards et al., (2001) concluded that responses were likely to be significantly higher if an incentive was offered, the survey was relatively short, a reminder and second copy of the survey was provided to non-responders and if a senior, well known academic endorsed the survey. Each of these techniques were utilised during the survey data collection.

The face to face structured questionnaire was an advantageous data collection tool in a number of ways. The interviewer was able to clarify any ambiguities and inconsistencies and any misinterpretations could be checked. There were also no literacy requirements for the respondents. The experienced interviewer ensured that the questions were answered in the correct order and they were able to put the respondent at ease by being friendly and accommodating. However unfortunately, this method of data collection is expensive and time-consuming. Interviewer bias could potentially occur. However, the interviewer had received training and was able to establish a rapport with the respondents, thus putting them at ease, appearing non-judgemental and reducing the potential for interviewer bias (Bowling, 2006).

### 3.3 Qualitative methods

Two pieces of research within this PhD employed qualitative methods, in the form of semi-structured interviews. Interviews are a practical, flexible and relatively economical way to collect data. This method of research attempts to gain the individual's perspective of their social world, focusing on their experiences of and association with the research topic (Carter and Henderson, 2006). Interviews follow a naturalistic paradigm, which assumes that there are multiple interpretations of reality and the researcher's aim is to understand how the individual sees their own reality in their social world (Carter and Henderson, 2006). In relation to health services research, such as this, qualitative interviews can access explanations for behaviour that would not always be possible through quantitative research.

There were a number of positive aspects of the interview process. It allowed the researcher to intervene and direct the interviewees to discuss particular topics (Carter and Henderson, 2006). The researcher had control of the interview, so discussion could be broad to gain a general understanding, or could focus in depth upon a particular aspect of the research (Britten, 1995). It was of key importance that the interviewee did not feel that they were being judged. This was especially important whilst discussing smoking with those in the process of quitting. At times statements were made which were either incorrect or that the researcher disagreed with, however on a number of cases 'bracketing' occurred. This was where the researcher had to withhold personal opinions about the topic in order to avoid influencing the interviewee, and hoping to prevent interviewer bias.

The sample sizes for the qualitative research were significantly smaller than the sample sizes for the quantitative research; just 14 and 17 interviews compared with 132, 86 and 10,560 respondents respectively. A combination of purposeful sampling and snowball sampling were used (Carter and Henderson, 2006). Purposeful sampling is where participants are chosen deliberately for their particular knowledge or a certain characteristic. For example, in the current research the interviewees were either staff or clients from one of two SSSs. Snowballing sampling was also involved; an initial contact was made, they were

then asked if they knew of others who could contribute to the research. These participants were then asked for further referrals of others who could get involved. This was particularly the case within the client interviews. The small size of the interview samples meant that the findings from the qualitative data could only be generalised to the small sample investigated. However, the findings from the interviews had plausibility, which was illustrated by the support of similar findings from considerably larger studies (Hilton et al., 2008; Platt et al., 2009), as well as findings from the current quantitative chapters. Therefore the qualitative data could be used to draw reliable conclusions, as well as providing additional detail to support the quantitative findings.





## **Chapter 4: National Survey Of English Stop Smoking Service Co-ordinators**

### **4.1 Context**

This survey of National Health Service (NHS) stop smoking service (SSS) co-ordinators was conducted between March and May 2007. A few key events had occurred around this time which may have had an impact upon the co-ordinators responses. A new smoking cessation medication, varenicline (Champix), was introduced in England at the end of 2006. However it was not provided to clients by many SSSs until the summer of 2007, when it received approval from the National Institute for Health and Clinical Excellence (NICE, 2007).

It was anticipated that the smoke-free legislation would be implemented on the 1<sup>st</sup> July 2007. This major change was expected to result in significant benefits for public health. Research from other smoke-free countries suggested that there would be an increase in the amount of smokers trying to quit. SSSs were expected to be prepared for any increase in client demand.

There had been a large amount of structural reorganisation within the NHS which may have affected many of the SSSs. Some Primary Care Trusts (PCTs) were split up and new trusts emerged from a combination of old trusts. This resulted in some SSSs merging to form larger new services or breaking up into a number of smaller services. Co-ordinators in some SSSs had to re-apply for their jobs and in some areas there was a significant amount of organisational, managerial and physical change.

### **4.2 Introduction**

Smoking is the largest avoidable cause of death in the United Kingdom (UK) with over 114,000 UK deaths per year resulting from smoking related disease (Peto et al., 2006). Currently in the UK there are approximately 10.5 million adult smokers,

which equates to 21 % of the adult population (Office for National Statistics (ONS), 2009) (see Chapter 1).

In 2004 the US Surgeon General Report 'Health consequences of smoking' concluded that smoking harms nearly every organ in the body, causing many diseases including lung cancer, bladder cancer, circulatory disease, stroke, coronary heart disease, chronic obstructive pulmonary disease, osteoporosis and erectile dysfunction, as well as reducing the general health of all smokers (US Surgeon General, 2004). Smoking is not only harmful to the smoker; it can also be hazardous to individuals in the smoker's environment. Second hand smoke (SHS) can lead to short term adverse effects in non-smokers such as eye irritation, headaches and cough (Otsuka, 2001), as well as more serious long term effects, such as cardiovascular disease and lung cancer (Scientific Committee on Tobacco and Health (SCOTH), 2004; US Surgeon General, 2006) (see Chapter 1).

One method of reducing the harm that SHS causes is to introduce legislation which restricts where smoking is allowed (e.g. Ireland 2004, Sweden 2005 and Scotland 2006). On July 1<sup>st</sup> 2007 a new legislation which prohibited smoking in enclosed public places and workplaces was introduced into England; following Wales on 2<sup>nd</sup> April and Northern Ireland on 30<sup>th</sup> April. The legislation was proposed to primarily reduce exposure to SHS, but also to prevent the uptake of smoking and to encourage smokers to quit (see Chapter 2).

It was estimated that the smoking prevalence in England could fall between two to four percent following the introduction of the legislation (West, 2002). Smokers can quit using a variety of methods, one of which is with the support of NHS SSSs. SSSs offer free, specialist, evidence based interventions to smokers who are motivated to stop smoking. Motivational counselling is offered on a one to one or group basis, and services also provide access to smoking cessation medications such as nicotine replacement therapy (NRT), bupropion (Zyban) or varenicline (Champix) (see Chapter 2).

Following an increase in SSS client numbers in Scotland as a result of smoke-free legislation (Bauld, 2006), it was anticipated that the introduction of the English

legislation could lead to a similar increase in client demand. This research investigated client throughput, service structure, staffing and funding arrangements, specific client groups the services were targeting and the methods they used to do this in the run up to the legislation. It explored how SSSs and the SSS co-ordinators were preparing for the legislation and their expectations about an increase in client numbers.

#### **4.3 Ethical approval**

Ethical approval for this research was sought and gained from the University of Bath, Department of Psychology's Ethics Committee; no alterations were required to the study protocol. Ethical approval is needed to ensure that participants are fully informed about their involvement and about the research, that they participate voluntarily and that they are aware that they can withdraw from the research at any time. Additionally ethical approval ensured that participants were not endangered in any way by the research and that their responses would be treated confidentially.

#### **4.4 Aims and objectives**

The aim of this research was to gain an insight into English SSSs, to understand their structure and functioning in the run up to the smoke-free legislation in England, and to gather baseline data for a subsequent follow-up national survey. The study had a number of objectives:

- To obtain an overview of England's SSSs as they were in the run up to the smoke-free legislation. Through questioning co-ordinators generally about their treatment methods, target populations and staffing structures, a clear understanding was able to be gained about how the services were set up and how they ran in general
- To find out further information about SSS co-ordinators, such as their time in post and a breakdown of their work responsibilities via a number of questions specific to the co-ordinators day to day duties. This enabled comparison

between different SSSs as well as a more generalised model of the co-ordinators role to be established

- To explore the structure and functions of the SSSs for example by asking questions relating to numbers of clients who attend group and individual sessions, to gather a more detailed understanding of the running of the services
- To examine services' preparation for smoke-free legislation. This objective allowed for knowledge to be gathered with regard to how individual services were actively planning to respond to the legislation and for comparison between SSSs to be made. It also provided insight into how much co-ordinators were expecting the legislation to impact upon smoking and the SSSs
- To explore co-ordinators perceived ability to cope with the anticipated implications of the smoke-free legislation. Co-ordinators would again illustrate any changes they were expecting to see following the legislations implementation, as well as allowing for comparison between different SSSs intended methods of coping with any resulting changes

## **4.5 Method**

### **4.5.1 Survey design**

The design of the survey was informed by data from a number of sources. Previous surveys of SSSs were reviewed to identify relevant questions. First, a report by colleagues investigating activities undertaken by NHS SSSs to engage and provide smoking cessation support to employers and employees was reviewed. Also reviewed were a number of brief surveys with SSS co-ordinators conducted by Andy McEwen (Director, Smoking Cessation Services Research Network (SCSRN)) and telephone interviews with Scottish SSS co-ordinators conducted by Linda Bauld (Professor of Social and Policy Sciences, University of Bath). Also consulted were two surveys of SSS co-ordinators conducted as part of the national evaluation of services in 2001 and 2002 (Pound et al., 2003, Bauld et

al., 2005) and a public health survey conducted by the Health Development Agency (HDA) (HDA, 2004).

#### 4.5.2 Survey content

The survey consisted of eight sections and had 44 items. The full list of questions can be found in the appendix (see Appendix 4.1). An outline of each section is given below.

##### 4.5.2.1 Information about the stop smoking service co-ordinator

Section one asked for information about the co-ordinator; the person in charge of the day to day running of the SSS. It aimed to find out how long the co-ordinator had been in their current role, on what basis they managed the service (e.g. full time, part time), the types of activities the individual carried out in an average week and whether running the service was their main role, or whether they had other duties. There were seven questions in this section, four of these were open ended, three of which required a short answer; the other required a longer answer that could be analysed qualitatively. The other three questions were multiple choice, in two of these the co-ordinators could only give one answer, in the final question multiple answers were allowed to be given.

##### 4.5.2.2 Information about the stop smoking service

This section investigated the general structure of the service, enquiring about the name of the service, the number of PCTs covered by the service, the type of areas the service accommodated (e.g. rural, urban), the type and number of staff employed by the service, and the amount of hours that were worked by the staff. Co-ordinators were asked for the maximum and minimum number of clients one advisor would see in an average week. Information was sought about the type of interventions offered and approximations about what percentage of clients received group and individual support were requested. Co-ordinators were asked, for both group and individual treatment, how long sessions lasted and how many sessions constituted a complete course of treatment. This section also explored

the kinds of venues in which interventions were offered, whether the service collected 52 week quitting data and whether they sought client's views about the service in a systematic way. There were 14 questions in this section of the survey. One of these questions was qualitative, the rest were quantitative. Eight of the questions were open ended, however seven of these only required a short numerical answer. Three questions were multiple choice where only one answer was allowed and three questions were multiple choice where there was space for multiple answers. When the option 'other' was given, space was provided for the co-ordinators to write their own answer. This was true throughout the survey.

#### 4.5.2.3 Demand

Co-ordinators were asked whether they felt there would be a change in client demand for their service in the run up to the smoke-free legislation and explored the size of any anticipated change in demand. This section consisted of two questions, one was multiple choice where only one answer could be given, and the other was open ended, where a percentage was required.

#### 4.5.2.4 Coping with demand

There were five questions in this section which asked co-ordinators about their perceived ability to cope, for example, asking how well they anticipated they would be able to cope with three different sized increases in client demand for their service. For each increase in client size, only one answer out of four could be given. It also asked about any changes in funding from April 2007 and whether there would be any employment of new staff, as well as asking about waiting lists and other coping methods. All five questions were multiple choice; three only required one answer and the other two allowed the co-ordinators to tick as many answers as they wished.

#### 4.5.2.5 Training

This section investigated whether more training was going to be provided in light of the smoke-free legislation. There were three questions, the first two were multiple

choice where only one answer was allowed, asking whether more training was going to be provided and whether it would target particular professionals. The final question was also multiple choice asking about the type of professionals that were going to be trained; co-ordinators were able to give as many answers as they wished.

#### 4.5.2.6 Workplaces

Co-ordinators were asked about workplace cessation programmes, whether their service offered a workplace service and whether there was an individual whose main responsibility was running this workplace service. These questions were both multiple choice where only one answer was allowed. Co-ordinators were also asked about the proportion of clients in the previous year that had been recruited from workplace environments. Co-ordinators were finally asked whether they were planning any changes to workplace activities in light of the legislation, space was provided for a qualitative description of these workplace activities. There were five questions in total.

#### 4.5.2.7 Publicity

There were four questions relating to publicity. The survey enquired about whether the service would be publicising themselves within the local area, when this publicity had or intended to begin, the types of publicity methods used and whether this publicity would explicitly mention the smoke-free legislation. Three of the questions were multiple choice with one possible answer, the fourth question allowed multiple answers.

#### 4.5.2.8 Reaching target groups

This section sought to explore whether services targeted particular vulnerable groups in society. It asked which groups were targeted in a multiple choice format where numerous answers could be given. Two qualitative open ended questions were then posed, asking how these specific groups were targeted and whether any

additional activities were being run to reach these groups in the period leading up to and immediately following the introduction of the smoke-free legislation.

Finally, the co-ordinators were asked whether there was anything further they wanted to add in relation to the implications of the smoke-free legislation on their SSS. Unlimited space was provided for this answer, which was analysed qualitatively.

For eight of the questions, there was space available for the co-ordinators to add any extra comments that they believed to be appropriate, and to give more detail to elaborate upon their responses. Qualitative analysis of these free text responses were included in the findings of this chapter where appropriate.

This was a cross-sectional survey which was disseminated to England's SSS co-ordinators via the internet. A questionnaire tool called 'SurveyMonkey' was used. SurveyMonkey is an online survey tool where users can design and distribute surveys and then collate and analyse responses ([www.SurveyMonkey.com](http://www.SurveyMonkey.com)).

#### 4.5.3 Pilot survey

A pilot survey, along with a detailed explanatory cover email was sent to the 13 SSS co-ordinators who were members of the SCSRN in February 2007. Five responses were received and feedback was provided. A small number of minor additions were made and the national survey was finalised. The findings from the pilot survey were included in the main analysis.

#### 4.5.4 Sample

The survey aimed to access all SSS co-ordinators in England. However, no national publicly available list of co-ordinators existed at the time that the survey was designed. The researcher therefore had to develop a list from a range of sources. A list of all SSS co-ordinators who attended the UK National Smoking Cessation Conference in 2006 was obtained from the conference organisers. The nine Regional Tobacco Leads in England were then contacted and asked for a list



of the SSS co-ordinators in their region. Six regional leads responded and the information they provided helped to update the master list. Each SSS within the three remaining regions were contacted via telephone or email, and the co-ordinator contact details were requested. The master list was updated and co-ordinators from Scotland, Wales and Northern Ireland were removed. The final list consisted of 179 co-ordinator names and contact details. This represented as completed a list as possible of all NHS SSS co-ordinators in February 2007.

#### 4.5.5 Representativeness of the sample

PCTs in England underwent a process of reorganisation from October 2006 that was still under way when the survey was conducted. This meant that some services were being merged with others or being asked to cover additional areas. A list of the reorganised PCTs, 153 in total, was obtained from the Department of Health in February 2007. This list was compared with survey responses which asked which PCTs (sometimes more than one) the SSS covered. A response to the survey was received from 123 of the 153 listed PCTs, representing an 80 % coverage of English PCTs.

#### 4.5.6 Survey dissemination

The survey and covering email was sent to the 179 English SSS co-ordinators via a SurveyMonkey internet link in March 2007. A number of emails were returned due to incorrect email addresses, these co-ordinators were contacted by telephone and correct email addresses were acquired. A response was received from seven services stating that there currently was not a co-ordinator in post. These seven were excluded from the baseline number.

After two weeks, 36 (21 %) co-ordinators had responded. A follow-up reminder email was sent to non-responders. After three weeks a total of 74 co-ordinators had responded (43 %). The remaining non-responders were telephoned to remind them to reply, however only four were spoken to in person as many were out of the office or unavailable. Messages were left for the co-ordinators who were not spoken to directly. Three weeks following the reminder phone calls, 110 co-

ordinators had responded (64 %). The survey was sent in paper format to all of the remaining non-responders.

The on-line survey was closed on 4<sup>th</sup> May, seven weeks after it had gone live. Any surveys received after this, would not have been included in the analysis; however none were received after this date. A total of 132 surveys were returned, an effective response rate of 77 %.

#### 4.5.7 Representativeness of non-responders

To assess whether there were any common characteristics between the 40 non-responding services, each service's quit rates were compared to the English average four week quit rate and their regions average quit rate, to see whether these non-responding services were particularly low or high performing. No clear relationships were found. The non-responding services were plotted on a map, to see whether there were any geographical patterns of dispersion. They were found to be evenly distributed across England.

#### 4.5.8 Analysis

All responses from the returned paper surveys were entered onto SurveyMonkey, where the results were pooled. Responses were then entered into the computer program SPSS for statistical analysis (SPSS, version 13).

Descriptive statistics and frequencies were calculated to assess for extraneous variables, or significant amounts of missing data, and to ascertain the normality of the data. No alterations needed to be made so further analysis commenced.

An analysis plan was developed, this focused on exploring descriptive results to satisfy the aims. Co-ordinators perceived ability to cope with a rise in client numbers as a result of smoke-free legislation and its relationship with other variables in the survey was examined.

Descriptive statistics were calculated to explore the data, and represent the results in the form of basic tables and graphs. Frequency tables were created, displaying a number of related values for each variable, including the mean, median, standard deviation, variance, range, minimum and maximum. In order to see whether any relationship existed between the variables, correlations were run between the co-ordinators perceived ability to cope or not and six other key variables; increased funding, introduction of publicity, increase in waiting times, introduction of waiting lists, reduction in frequency / length of behavioural support and increased training. Correlations measured linear relationships between these variables. These were conducted in order to establish whether any factors specific to certain services had a relationship with particular outcomes, such as whether increasing the amount of staff training provided had a relationship with the services perceived ability to cope with an increase in client demand. Simple regression analysis was conducted between perceived ability to cope and the six variables listed above, to explore whether these variables could predict perceived ability to cope. A simple t-test was conducted to explore the relationship between whether employing a workplace advisor increased the proportion of clients recruited from the workplace. Any positive findings could be translated into guidelines for services in order to increase their perceived ability to cope at times where increased demand might be anticipated.

A small number of questions in the current national survey were taken from two previous surveys of smoking cessation co-ordinators conducted as part of the national evaluation of services in 2001 and 2002. Some comparative analysis was carried out between the previous survey results and the current survey. Where comparison was possible, the results were outlined in the discussion section of this chapter.

## **4.6 Results**

### **4.6.1 Information about the stop smoking service co-ordinator**

The co-ordinators reported a variety of job titles, the most common being 'stop smoking service manager' (19 %, 24/128), 'stop smoking service co-ordinator' (9

%, 11/128), 'smoking cessation co-ordinator' (6 %, 8/128) and 'service manager' (6 %, 7/128). The median period of time in post was three years and three months (range 2 months – 7 years, 10 months).

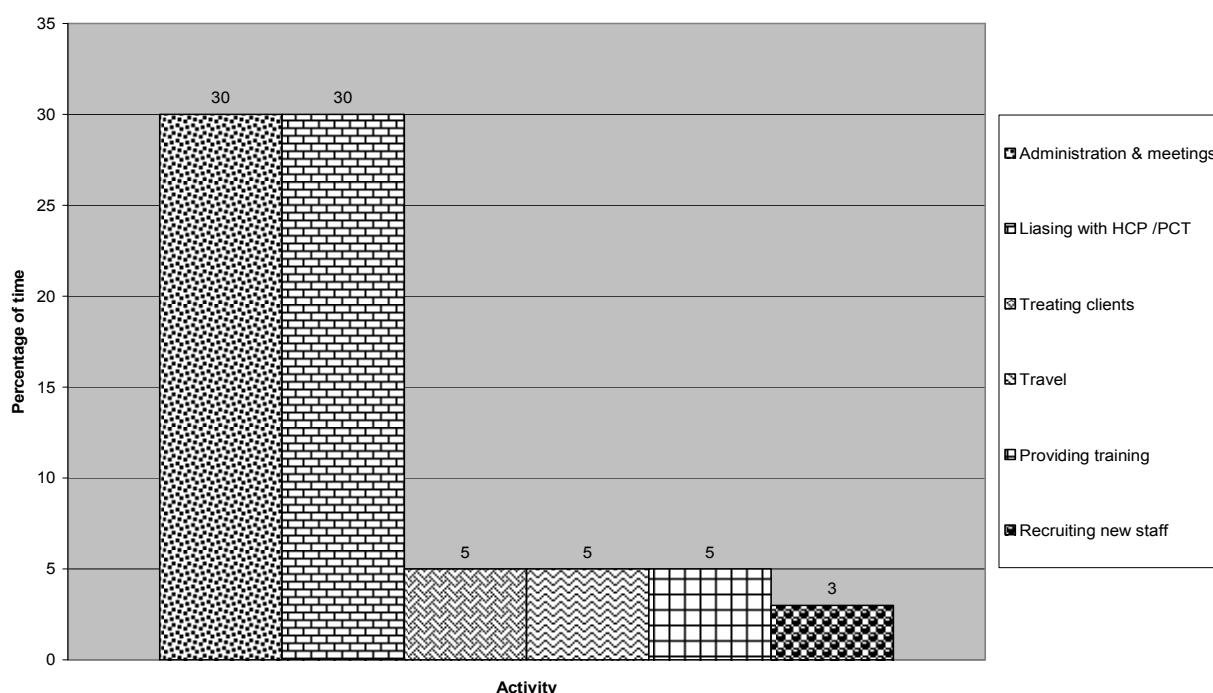
Many of the co-ordinators reported that they held full time posts, just over a quarter worked less than full time but more than half time as a co-ordinator. Only a small number worked as a co-ordinator half time or less, as can be seen in Table 4.1.

Table 4.1: Time spent by co-ordinators running the stop smoking service

<b>Time spent running SSS</b>	<b>% (number) of co-ordinators reporting amount of time worked</b>
Full time	61 (79)
Less than full time, more than part time	26 (34)
Half time or less	12 (16)

Only a very small amount of co-ordinators time was reportedly spent treating clients, travelling, providing training and recruiting new staff. Nearly a third of their time was reportedly spent carrying out administrative tasks and attending meetings and a further third of their time was allocated to liaising with the PCT or other health care professionals (HCPs) (see Figure 4.1).

Figure 4.1: Average reported percentage of time spent by co-ordinators each week on activities within the stop smoking service



For more than half of the co-ordinators (58 %, 73/127), running their SSS was reported to be their sole responsibility, while 43 % (54/127) of co-ordinators had other responsibilities outside of running their service. Of those who provided details about their other responsibilities, half of these related to tobacco control activities (52 %, 26/50). Other responsibilities included managing alcohol and substance misuse services, health promotion for diabetes, chronic condition management and general management responsibility.

#### 4.6.2 Information about the stop smoking service

Most of the SSSs reportedly provided a service to one PCT (73 %, 85/117), some provided a service to two PCTs (13 %, 15/117), a number provided a service to three or more PCTs (9 %, 10/117) and a small proportion provided a service to less than one PCT (6 %, 7/117). Most services covered more than one type of area, for example rural and semi-rural; all types of area were covered relatively evenly. Urban areas were served by 67 % (80/119) of services, semi-urban areas were reached by 65 % (77/119) of services, semi-rural areas were covered by 57 % (68/119) of services and rural areas were served by 53 % (63/119) of services.

The average number of core staff (specialists) employed by each service was four, working an average of 33 hours per week. An average of five advisors (sessional / part time) were employed by each service, working an average of seven hours per week. Responses for the number of advisors were very varied, ranging from zero up to 300 (the mean number of advisors was 31, however the median number of advisors was five). Seventy-four percent (59/80) of co-ordinators said that they employed 18 or less advisors, however 20 co-ordinators (25 %) said that they had 25 or more advisors. It was possible that those who stated a proportionately higher number of advisors were meaning community advisors, such as pharmacists, health visitors etc.

The average number of administrative staff employed by a service was two, working an average of 30 hours per week. There was on average one other member of staff employed by the service, working on average 36 hours per week. Other staff members included a public relations and campaign officer, staff employed to enter data and voluntary staff. Table 4.2 shows the break down of the number of staff and hours worked; due to the large variance the median is reported.

Table 4.2: Median reported number of staff directly employed by the stop smoking service and the number of hours they work

<b>Position</b>	<b>Number of staff (range)</b>	<b>Hours worked per week (range)</b>
Core staff (specialists)	4 (0 – 18)	33 (15 – 39)
Advisors (sessional / part time)	5 (0 – 300)	7 (0 – 38)
Administrative staff	2 (0 – 9)	30 (0 – 39)
Other staff	1 (0 - 277)	36 (0 – 38)

The average reported highest number of clients an advisor would see in one week was 30 clients (range 2 – 200 clients). The average reported lowest number of clients an advisor would see in one week was eight clients (range 0 – 75 clients).

A variety of smoking cessation interventions were reported as being used by English SSSs. These included structured individual advice / counselling (98 %, 117/119), structured group advice / counselling (84 %, 100/119), telephone advice / counselling (79 %, 94/119), drop in individual advice / counselling (70 %, 83/119) and self-help materials (66 %, 78/119). The full range of interventions can be seen in Table 4.3. 'Other' types of cessation intervention provided to clients included home visits and specialist nurse support.

The average length of time for each individual advice / counselling session was 25 minutes (range 1 – 90 minutes) and a complete course of treatment lasted for an average of six sessions (range 1 – 18 sessions). On average 80 % (range 5 – 100 %) of clients attending the SSSs received individual support.

The average length of time for each group advice / counselling session was 60 minutes (range 33 – 150 minutes), a complete course of treatment lasted for an average of seven sessions (range 1 – 12 sessions). On average 20 % (range 1 – 95 %) of clients attending the SSSs received group support.

Table 4.3: Smoking cessation interventions reportedly delivered by stop smoking services

<b>Smoking cessation intervention</b>	<b>% (number) of SSSs</b>
Structured individual advice / counselling	98 (117)
Structured group advice / counselling	84 (100)
Telephone advice / counselling	79 (94)
Drop in individual advice / counselling	70 (83)
Self-help materials (i.e. booklets)	66 (78)
Rolling group treatment	55 (65)
Drop in group advice / counselling	45 (54)
Relapse prevention groups	27 (32)
SMS text messaging	24 (28)
Other	10 (12)
Peer led sessions (i.e. led by ex smokers)	8 (10)
Computer software	6 (7)
Acupuncture	3 (3)
Hypnosis	1 (1)

SSS co-ordinators reported using a range of venues in which to provide smoking cessation interventions. The most commonly reported venues were general practices, workplaces, NHS primary care premises (other than general practices and pharmacies), voluntary or local authority premises, NHS hospital premises and pharmacies. The full range of venues used can be seen in Table 4.4. 'Other' venues mentioned included the clients home, libraries, leisure centres and church halls.

Table 4.4: Venues reportedly used to deliver smoking cessation interventions

<b>Venue</b>	<b>% (number) of SSSs</b>
General practices	95 (113)
Workplaces	93 (111)
NHS primary care premises (other than general practices and pharmacies)	88 (105)
Voluntary or local authority premises	82 (98)
NHS hospital premises	80 (95)
Pharmacies	76 (90)
Commercial / rented premises	54 (64)
Other	27 (32)

The majority of co-ordinators (62 %, 74 / 119) reported that their service collected data on clients quit rates at 52 weeks. It was reported that 71 % (85 / 119) of SSSs recorded client's views about their service in a systematic way. Methods of collecting this data included 52 week questionnaires, end of treatment questionnaires, drop out questionnaires, client satisfaction questionnaires and other questionnaires, telephone calls, website feedback forms, focus groups, patient and public involvement groups, follow-up letters, evaluation forms and via other feedback (see Table 4.5).



Table 4.5: Methods of collecting client's views about the stop smoking service

Method	Number of SSSs
Unspecified questionnaire	26
Client satisfaction questionnaire	17
End of session questionnaire	16
Telephone calls	13
One year questionnaire	12
Evaluation form	10
Unspecified feedback	9
Focus groups	5
Drop out questionnaire	3
Patient and public involvement group	2
Website feedback form	1
Quarterly meetings with staff	1
Discovery interviews	1

#### 4.6.3 Reaching target groups

A wide range of specific groups were reported to be targeted by the SSSs. Almost all of the services stated that they targeted pregnant women, and almost 80 % (86/109) claimed to target young people and people from economically disadvantaged groups. Other groups commonly reported to be targeted included people with smoking related illnesses, hospital in-patients and people with mental health problems (see Table 4.6). 'Other' groups targeted included manual workers, prisoners and lesbian, gay, bisexual and transgender groups.

Table 4.6: Groups in society that were reportedly targeted by stop smoking services

Target group	% (number) of SSSs
Pregnant women	96 (105)
Young people	79 (86)
Economically disadvantaged	79 (86)
People with smoking related illnesses	73 (80)
Hospital in-patients	73 (80)
People with mental health	73 (79)
Ethnic minorities	58 (63)
People who are housebound	37 (40)
People with disabilities	27 (29)
Homeless	21 (23)
Other	20 (22)

These groups were targeted in a number of specific ways, including home visits, drop in clinics, working in partnership with other organisations and by introducing specific referral pathways.

#### 4.6.4 Workplaces

Almost all services (98 %, 114/116) stated that they were providing a workplace service to local employers and workplaces when the survey was conducted. The co-ordinators stated that 42 % (49/116) of services employed someone whose main responsibility was providing a workplace service.

SSSs reported that, on average, ten percent (s.d. = 8.8, range 1 – 62 %) of their clients were recruited from local employers or workplaces, although 41 % (45/110) of respondents reported that they did not collect such data. Services that employed someone whose sole responsibility was workplace smoking cessation (29/110) reported a higher mean percentage of their clients recruited in this way (13 %) than services who did not employ someone for this purpose (7 %, 35/110) ( $t=-2.626$ ,  $df=34.201$ ,  $p=0.013$ ).

It was reported that 68 % (79/116) of services were planning changes to their workplace activities in light of the legislation. These changes included adding lunch

time sessions, increased advertising, proactively approaching employers and workplace presentations.

#### 4.6.5 Training

The majority of services (66 %, 77/116) were planning an increased number of training sessions leading up to the legislation. Co-ordinators reported that 68 % (55/81) of any increased training was intended to target particular professionals. The professionals most often mentioned were community advisors, such as pharmacists (70 %, 50/71) and practice nurses (68 %, 48/71). The range of professionals targeted for training can be seen in Table 4.7. 'Other' targeted professionals included school nurses, prison staff, youth workers, health care assistants, local residents and staff in mental health settings.

Table 4.7: Professionals reportedly targeted for training in smoking cessation techniques (n = 71)

<b>Professional group</b>	<b>% (number) of SSSs</b>
Pharmacists	70 (50)
Practice nurses	68 (48)
Health visitors	55 (39)
Workplaces advisors	48 (34)
Local authority staff	46 (33)
Other	42 (30)
General practitioners	38 (27)
Community midwives	35 (25)
Hospital midwives	32 (23)
Dentists	28 (20)
Hospital consultants	14 (10)

#### 4.6.6 Publicity

The co-ordinators stated that almost all services (96 %, 108/113) were planning local publicity for their service, to link with the introduction of smoke-free legislation. For 71 % (75/105) of services, this publicity had already begun (pre March 2007) (see Figure 4.2). The most common forms of publicity were posters, leaflets and local radio (see Table 4.8). A range of other forms of publicity were

mentioned, the most common included local press, newspapers, local buses, press releases, seminars and banners. It was reported that 82 % (87/106) of this publicity would explicitly mention the legislation.

Figure 4.2: Month that publicity was intended to be introduced by stop smoking service

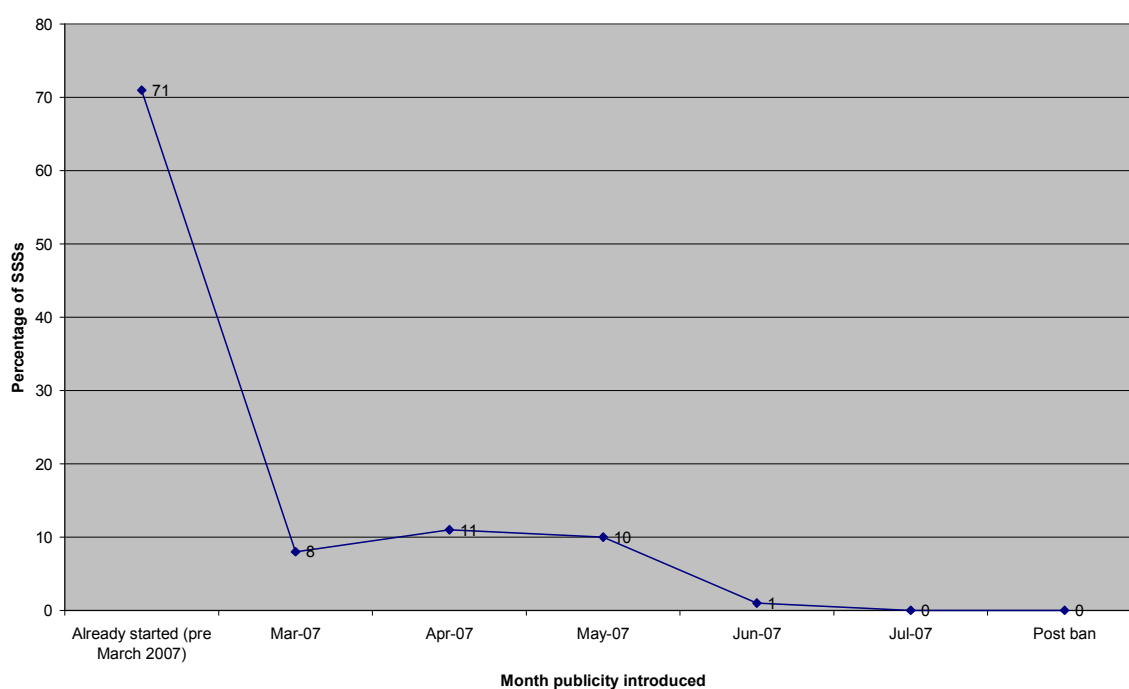


Table 4.8: Methods of publicity employed by stop smoking services

Method of publicity	% (number) of SSSs
Posters	73 (79)
Leaflets	71 (77)
Other	66 (71)
Local radio	61 (66)
Local television	19 (20)

#### 4.6.7 Demand

Almost all co-ordinators (91 %, 108/119) expected there to be an increase in demand for their service in the run up to the introduction of the smoke-free legislation. A range of increases were expected, the average expected increase in client demand was a 41 % increase (median 30, range 7 – 250 %).

#### 4.6.8 Coping with demand

For a hypothetical 25 % increase in client numbers, a large proportion of co-ordinators (59 %, 61/118) thought their service would 'cope very well'. For a 50 % increase in client numbers over a third of co-ordinators (34 %, 36/118) believed their service would 'cope adequately'. For a 100 % increase in client numbers, slightly under half of co-ordinators (40 %, 44/118) felt their service would be 'unable to cope' (see Table 4.9).

Table 4.9: Stop smoking services anticipated ability to cope with a hypothetical increase in clients

Hypothetical percentage increase in clients (%)	Anticipated ability to cope % (number)			
	Cope very well	Cope adequately	Just about cope	Unable to cope
25	59 (61)	26 (27)	14 (14)	2 (2)
50	21 (22)	34 (36)	31 (33)	13 (14)
100	13 (14)	16 (17)	31 (34)	40 (44)

It was reported that 42 % (50/118) of services had not been allocated increased funding from April 2007, 42 % (50/118) of services were not sure whether they had been allocated increased funding from April 2007 and 16 % (19/118) of services had been allocated increased funding from April 2007 (see Table 4.10).

Table 4.10: Range of funding increases with stop smoking services (n = 19)

Size of funding increase	% (number) of SSSs
Less than 10%	32 (6)
10-15%	42 (8)
16-20%	16 (3)
26-30%	0
More than 30%	11 (2)

Ninety five co-ordinators said that they were planning to employ new staff. Of these 50 % (47/95) said they would be employing new advisors, 28 % (27/95) said that they would be employing new core staff, 23 % (22/95) said that they would be

employing new administrative staff and 55 % (52/95) said that they would be employing other new staff. 'Other' new staff mentioned included bank staff, pharmacist advisors, mental health specialist advisors, community based advisors, workplace specialists, and hospital advisors. A number of co-ordinators stated that the recent PCT reconfiguration had affected new staffing arrangements. Some mentioned that their staff recruitment was currently suspended or that they had recently had to reduce the amount of staff that they employed.

In order to cope with an increase in client numbers over half of the co-ordinators (58 %, 36/62) said that they would have to introduce waiting lists and 55 % (34/62) of co-ordinators said that they would have to increase waiting times of current waiting lists. Almost a third (31 %, 19/62) said that they would have to decrease the duration or frequency of behavioural support.

Spearman correlation analysis was carried out to determine whether certain variables were capturing information about the same notion or were distinct from each other. These items were: perceived ability to cope, increased funding, introduction of publicity, increased number of training sessions, introduction of waiting lists, increased waiting time of waiting lists and reduced frequency or duration of behavioural support. See appendix 4.2 for the correlation matrix. Only one significant relationship was found. Services that were planning to increase the amount of training provided, were more likely to be introducing local publicity about their service ( $r = 0.271$ ,  $p = 0.005$ ) (see Appendix 4.2).

This suggested that most of the key factors were not predictors of whether a co-ordinator felt their service would be able to cope with a 50% increase in client numbers. It suggested that the factors were distinct and were not measuring the same thing.

A simple regression analysis was also conducted to measure whether any of these key factors predicted whether a co-ordinator felt their service would be able to cope or not. The table illustrating the simple regression p values can be found in the appendix (see Appendix 4.3). There were no significant relationships. Due to

this lack of significant results, further in-depth logistic regression analysis was not conducted.

## **4.7 Discussion**

This national survey provided an overview of English SSSs before the implementation of the smoke-free legislation. It described how services were structured and highlighted the extent to which co-ordinators felt able to cope with any anticipated rise in client numbers as a result of the new law. A number of the results from the national survey were compared with past surveys of SSS co-ordinators that took place in 2001 and 2002 (Pound et al, 2003, Coleman and Pound, 2003). The main findings from this survey can be grouped into three main themes. These themes, service management and staffing, service delivery, and preparing for smoke-free legislation, were discussed in turn followed by reflection on the limitations of the study.

### **4.7.1 Service management and staffing**

The survey began by asking co-ordinators about their role. The majority of co-ordinators were employed full time (61 %). This was a higher proportion than when services were in the early stage of development in 2001, when just 34 % worked full time. In addition, fewer co-ordinators (43 % in 2007, compared with 56 % in 2001) reported having responsibilities outside of running the SSS. The increase in full time posts and the reduction in the proportion of co-ordinators with additional responsibilities suggested that services were better established and that local NHS managers recognised the level of input required to run an effective treatment service. Although the percentage of co-ordinators that were employed on a full time basis was higher in the current research than reported previously, this figure was still proportionately small in comparison with NICE guidance, which recommended that all SSS co-ordinators should be employed on a full time basis (NICE, 2008).

The average number of core (specialist) staff employed by the services was four in the current survey, a similar number to that given in 2001. The average number of

additional advisers was also similar when the 2001 and 2007 survey results were compared - six in 2001 and five in 2007. However, this average masked a significant amount of variation between services, with some services staffed only by core specialist staff while others had extremely large numbers (up to 300 in one case) of additional advisers. This variety probably reflected the rapid expansion in the range of settings where smoking treatment was offered and delivered by professionals as just one aspect of their job (see 4.7.2). Alternatively the difference in the number of advisors may have reflected the limitation of language. There is not a single definition of 'advisor'. If the question was interpreted differently by different co-ordinators, this could explain the wide range in answers.

#### 4.7.2 Service delivery

SSSs offered a variety of smoking cessation interventions. The main types of intervention included structured individual counselling, structured group counselling, telephone counselling, drop in individual counselling and self-help materials.

Some changes were observed in the type and range of smoking cessation interventions delivered by SSSs between 2001 and 2007. In particular, the proportion of services offering individual advice and counselling rose slightly from 95 % in 2001 to 98 % in 2007. The proportion offering group-based support fell from 94 % in 2001 to 84 % in 2007. This reflected a widely reported shift from the traditional model of smoking cessation support, which was largely group-based, to a more individualised treatment model, often driven by client preference (Bauld et al, 2005). This change in treatment options may have occurred for a number of reasons. Clients may have demonstrated a preference for individual advice and counselling, choosing to be seen alone, as opposed to in a group. Groups may have been set up by the services, however there may have been limited attendance, thus they were stopped. The range of treatment options offered to clients also expanded between the two surveys with new forms of support such as text messaging and relapse prevention groups being reported in 2007 but not in 2001. The expansion in the range of treatment options may have occurred as an attempt by the services to continually engage with new clients. Using new forms of



support such as text messaging and online programmes may have been a way in which to do so.

More SSSs were operating in a wider range of venues than when they were first established. The proportion of services operating in general practices rose from 88 % in 2001 to 95 % in 2007. Those services using local authority or voluntary sector venues rose gradually from 65 % in 2001 to 74 % in 2002 to 82 % in 2007. Those operating in pharmacies rose from 54 % in 2001 to 59 % in 2002 and to 76 % in 2007. This illustrated NICE guidance, which suggested that links should be made between the services and as many different areas within the community, to ensure that HCPs had as many opportunities as possible to offer smoking advice to those who required it (NICE, 2008). If more locations within the community were able to provide support, then a higher proportion of smokers may be able to gain access to this.

Changes were also observed in the groups that SSSs were targeting. Compared with 2001, a higher proportion of services were actively targeting specific groups in 2007. For example, in 2001 86 % of services said they were targeting pregnant women, compared with 96 % in 2007. While the proportion targeting disadvantaged smokers remained the same, at 79 %, targeting of young smokers became much more common (just 20 % in 2001, compared with 79 % in 2007). Attempts to reach ethnic minority smokers also increased (21 % in 2001 compared with 58 % in 2007). Co-ordinators in the current survey also mentioned targeting groups that were not mentioned by services in 2001, such as people with mental health problems. This may have reflected the expansion of services from a focus primarily on the general smoking population to trying to address the needs of particular groups in society (Bell et al, 2007a), such as minority ethnic and socioeconomically disadvantaged populations, as recommended by NICE guidance (NICE, 2008).

#### 4.7.3 Preparation for smoke-free legislation

SSSs were preparing for the introduction of smoke-free legislation in England in a range of ways. In order to attract new clients who were considering quitting, almost

all services were planning local publicity. Most of this publicity began at least five months before the introduction of the legislation, most commonly taking the form of posters, leaflets and local radio advertising.

Almost all co-ordinators expected there to be an increase in client numbers around the time of the introduction of the smoke-free legislation. When asked how they would cope with any increased client demand, two thirds of services said that they were planning an increased number of training sessions. In particular, more training was to be provided to HCPs, including pharmacists, practice nurses and health visitors.

Despite this anticipated increase in client numbers, very few services had confirmed additional funding from April 2007, with only 16 % of co-ordinators reporting that they knew their funding would be increased. Many services were hoping to appoint new staff. More than half indicated that in order to cope with larger client numbers they would either have to introduce waiting lists or increase waiting times of current waiting lists.

Correlation and regression analyses did not identify any significant predictors for how confident co-ordinators were about their service's ability to cope with an increase in demand. This suggested that ability to cope with larger client numbers was probably due to a range of factors, possibly relating to the wider context in which services and their co-ordinators were working.

#### **4.8 Limitations**

There were a number of limitations to this research. First, there had recently been a great deal of structural reorganisation within the NHS which may have affected the co-ordinators responses. Some PCTs were split up and new trusts emerged from a combination of old trusts. In order to adapt to these new boundaries, some SSSs merged to form larger new services. This led to some co-ordinators having to re-apply for their own jobs, and in some cases there was some confusion as to who was in charge of the SSSs. These changes largely took place before the

survey was conducted but in some areas were still underway when the research began.

An additional limitation was that there was not an up to date official list of SSS co-ordinators at the time of the research. A complete co-ordinator list was therefore created by combining a number of sources, including Department of Health records and co-ordinator lists from regional leads. This lack of up to date information led to some contact details being incorrect, such as email addresses. Tracking down correct contact details contributed to delays in some of the co-ordinators receiving the survey.

At the time of the survey services were preparing for smoke-free legislation and many co-ordinators were extremely busy. This may have limited the time that they had available to respond to the survey. This may have reduced the number of co-ordinators who responded to the survey. It may also have meant that co-ordinators who did complete the survey had limited time to complete it, perhaps affecting the level of information provided, although there was no evidence to support this assumption.

As previously mentioned, lack of specific definitions for titles such as 'advisor' could have been seen as a further limitation. Co-ordinators may have read the question differently, or taken some of the key terms to mean different things. This may have resulted in a variety of different answers to the same question.

Responses provided by the co-ordinators were self-report, thus the analysis conducted, and conclusions drawn were based on the assumption that the co-ordinators were being truthful and accurate with their answers. This may not have always been the case. Finally, as there were researcher imposed categories for some of the responses, co-ordinators may have been forced to provide an answer, which may have been slightly different from one provided if they were asked for an open ended response.

## **4.9 Conclusion**

This research provided baseline data for the follow-up national survey, Survey 2, conducted in June - July 2008. Survey 2 was of a similar nature to the current survey, exploring similar issues, allowing for direct comparisons to be made. This allowed for conclusions to be drawn about the impact of smoke-free legislation on services that support smokers to quit (see Chapter 5).



## **Chapter 5: Follow-Up National Survey Of English Stop Smoking Service Co-ordinators And Comparison With Baseline Survey And Department Of Health Data**

### **5.1 Context**

In the year between the first national survey, conducted in March – May 2007, and the second national survey, conducted in May – June 2008, a number of tobacco control related events occurred, other than the introduction of the smoke-free legislation. These were highlighted here as they may have had an impact upon the National Health Service (NHS) stop smoking service (SSS) co-ordinators responses.

One of the most significant events was the introduction of varenicline (Champix) as a smoking cessation medication. Varenicline was launched in the UK at the end of 2006. However many SSSs did not begin to prescribe it to their clients for smoking cessation until it had received National Institute for Health and Clinical Excellence (NICE) recommendation in July 2007.

Additionally in October 2007 'NHS stop smoking services: service and monitoring guidance, October 2007/8' was published. These guidelines highlighted the gold standard smoking cessation treatments and medications that the SSSs were expected to follow. The new guidelines replaced the previous guidelines from 2001/2 (Department of Health, 2010).

### **5.2 Introduction**

In Chapter 4 a national survey was reported. It investigated the English SSSs client throughput, service structure, staffing and funding arrangements in the time preceding the introduction of the English smoke-free legislation. It discovered more about which specific client groups the services were targeting and the methods they used to do this. It explored how SSSs and the SSS co-ordinators prepared for the legislation and their expectations about increased client

numbers following this change to the law. For the purpose of this chapter the previous survey is referred to as Survey 1.

Survey 1 also acted as a source of baseline data for the current research, a follow-up survey of English SSS co-ordinators conducted ten months following the introduction of the English smoke-free legislation, Survey 2. By comparing the two surveys it was possible to explore the impact of the legislation for NHS SSSs, focusing upon changes in client throughput and the ways in which the services addressed demand arising from the smoke-free legislation.

The data collected in both of the surveys was also analysed in relation to routine data collected for the Department of Health. This Information Centre (IC) data was provided in the form of quarterly returns from every SSS in England. It consisted of information including age, gender, ethnicity, numbers of smokers setting a quit date, numbers of smokers who become self-reported four week quitters, pharmacotherapy received by the smokers and the type of intervention provided. The successful quit rates calculated from this Department of Health data were analysed in the final sections of this chapter in relation to a selection of variables from Surveys 1 and 2.

### **5.3 Ethical approval**

Ethical approval for this research was sought and gained from the University of Bath, Department of Psychology's Ethics Committee; no alterations were required to the study protocol. Ethical approval is needed to ensure that participants are fully informed about their involvement and about the research, that they participate voluntarily and that they are aware that they can withdraw from the research at any time. Additionally ethical approval ensured that participants were not endangered in any way by the research and that their responses would be treated confidentially.

## **5.4 Aims and objectives**

The aim of this research was to understand the impact of the smoke-free legislation for English NHS SSSs. There were a number of objectives:

- To explore structure and functioning of the English SSSs following the introduction of the smoke-free legislation for example by asking questions relating to numbers of clients who attend group and individual sessions, to gather a more detailed understanding of the running of the services following the legislations implementation
- To conduct comparison analysis of pre and post legislation national survey data in order to explore changes in the services from the time before to after the legislations introduction. Through exploring these changes a greater understanding of the impact of the legislation can be gained
- To compare pre and post legislation national survey data with Department of Health collected data of quit rates in order to establish whether data provided by the SSSs corresponded with Department of Health data. Additionally, to explore whether the Department of Health data assisted in the explanation of how the legislation impacted upon the services

## **5.5 Methods**

### **5.5.1 Survey design**

The design of Survey 2 was based primarily upon the design of Survey 1. Many of the questions were replicated or slightly re-worded from the pre to post legislation position. These original questions had been informed by data from a number of sources (see Chapter 4).

Survey 2 asked some questions, which had not been included in Survey 1. These were questions about the profile of the service, whether the co-ordinator felt the service was prepared for the legislation and whether they would have



done anything different in relation to their preparation. These were questions that would have been inappropriate to ask in the first survey, and thus comparisons were not possible. Findings from these questions can be found following the Survey 1 and 2 comparisons in the results section.

#### 5.5.2 Survey content

The survey consisted of four sections and had 13 items. The complete survey can be found in the appendices (see Appendix 5.1). An outline of each section is given below.

##### 5.5.2.1 Demand for the stop smoking service

The first three questions enquired about change in demand for the co-ordinators' SSS in the three months prior to the introduction of the legislation (April – June 2007), and in the three months following it (July – September 2007). Both of these questions collected continuous data. Co-ordinators were also asked how well they thought that their service had coped with any change in client demand for the service. This required a categorical response.

##### 5.5.2.2 Funding and staffing

The next two questions focused on change in funding from April 2007 in comparison with April the previous year. These were categorical and continuous questions, respectively. Co-ordinators were then asked whether they had employed any new staff in the lead up to the smoke-free legislation. It was asked whether the funding and new staff were still available and employed at the time of survey. Both questions required a categorical response.

##### 5.5.2.3 Service delivery and training

Co-ordinators were asked about any strategies employed by their service in order to cope with any change in client demand. These included introducing waiting lists, increasing waiting times of current waiting lists and decreasing the

duration or frequency of behavioural support. It was enquired as to whether these were still in place at time of survey. The training of professionals in providing brief advice and as community advisors was discussed. Co-ordinators were also asked about changes to workplace cessation activities since the introduction of the smoke-free legislation. All questions in this section were categorical.

#### 5.5.2.4 Service profile and preparation

Co-ordinators were asked categorical questions about the profile of their service. They were asked whether they felt that the smoke-free legislation had helped to raise the services profile and if so whether the profile was still being maintained at the time of survey. Further to this, co-ordinators were given the opportunity to provide a free text response as to whether they would do anything differently if they were to go back to spring 2007, when they were preparing for the smoke-free legislation.

Finally, the co-ordinators were asked whether there was anything further they wanted to add as free text in relation to the implications of the smoke-free legislation for their SSS. Qualitative analysis of the free text responses was carried out and findings have been included in the results section of this chapter where appropriate.

This was a cross-sectional survey, which when compared with the first cross-sectional Survey 1, allowed for changes in the SSSs, around the time of the English smoke-free legislation, to be observed.

#### 5.5.3 Pilot survey

The questionnaire, along with a detailed cover letter, was sent to seven SSS co-ordinators who were members of the Smoking Cessation Services Research Network (SCSRN). The letter can be found in the appendix (see Appendix 5.2). Useful feedback was received from these co-ordinators, which led to a small number of minor changes being made and the survey questionnaire was finalised. The findings from the pilot survey were included in the main analysis.

#### 5.5.4 Sample

The survey aimed to access all SSS co-ordinators in England. During the process of survey design and data collection for Survey 1 a list was compiled of all 179 English SSSs and co-ordinators (see Chapter 4). This list was used as the basis for the sample in Survey 2. All 179 co-ordinators from the original list were attempted to be contacted. Where the co-ordinator was no longer in post it was requested that the survey was forwarded to their replacement. The researcher was informed in a number of cases that there was no co-ordinator in post at the time of survey, or that a number of the services had merged into one, following NHS re-structuring. After taking these changes in to account, the total number of services included in the original sample was 151.

#### 5.5.5 Representativeness of the sample

In order to calculate the representativeness of the sample a list of all of the Primary Care Trusts (PCTs) in England was obtained from the NHS IC in April 2008. There were 152 English PCTs at that time. This list was compared with the Survey 2 responses which asked which PCTs (sometimes more than one) the SSS provided a service to. A response to the survey was received from 83 of the 152 PCTs, representing 55 % coverage of English PCTs. When this was broken down into strategic health authorities (SHAs), it could be seen that with the exception of the North East, Yorkshire and Humber and the East Midlands, the response rate was roughly equally representative across the country (see Table 5.1).

Table 5.1: Response rate by strategic health authority

SHA	Number	Percentage (%)
North East	9/12	75
North West	13/24	54
Yorkshire & Humber	5/14	36
East Midlands	7/9	78
West Midlands	9/17	53
East England	7/14	50
London	17/31	55
South East Coast	4/8	50
South Central	5/9	56
South West	7/14	50

#### 5.5.6 Survey dissemination

The survey was distributed to co-ordinators as part of a larger survey which was being carried out by researchers at University College London (UCL). The survey targeted all health care professionals (HCPs) working within smoking cessation and investigated self-reported smoking cessation activities. Survey 2 was attached to the UCL survey however it asked only the SSS co-ordinators to complete it. All other HCPs were asked to ignore that section of the survey.

In early May 2008 a letter was sent to all HCPs working within the field of smoking cessation. The letter introduced both the UCL survey and Survey 2. It explained that the latter was solely for SSS co-ordinators. The letter contained two links to the internet sites where the online surveys were. Co-ordinators were encouraged to log onto the website and complete the survey. The letter can be found in the appendices (see Appendix 5.2).

At the beginning of Survey 2 was a paragraph explaining that the co-ordinator may have remembered completing a survey the previous year about their services preparation for the smoke-free legislation and that this was a follow-up to the original survey.

Three weeks after the invitation letters were sent out and the survey went live, all non-responding co-ordinators were telephoned and reminded to complete the

survey. They were also offered the opportunity to complete the survey over the telephone if they preferred. In these instances the researcher entered the co-ordinators' response onto the online survey themselves. Two weeks later a further call was made to those co-ordinators who had still not responded. When the co-ordinator was unable to be spoken to directly, a follow-up email was sent to them, reminding them to complete the survey and providing them with the link. For those that had still not responded, a final letter, which included a paper version of the survey and a stamped addressed envelope, was sent to the co-ordinators, urging them to participate.

The on-line survey was closed on the 30<sup>th</sup> June, eight weeks after it had first gone live. Any surveys received after this would not have been included in the analysis, however none were received after this date. A total of 86 responses were received.

Unlike with Survey 1, an incentive was offered to the co-ordinators for their participation with the research. Those who completed the survey had the opportunity to have their name entered into a draw to win a free delegate place at the UK National Smoking Cessation Conference 2008. Co-ordinators could choose not to enter the prize draw. The incentive was also offered to HCPs who completed the UCL survey.

#### 5.5.7 Analysis

Data were entered into SPSS (version 13.1) (SPSS, 2004). Descriptive statistics were calculated to explore the data, and represent the results in the form of basic tables and graphs. Frequencies were calculated displaying a number of related values for each variable, including the mean, median, standard deviation, variance, range, minimum and maximum. The data was assessed for extraneous variables, or significant amounts of missing data. No alterations needed to be made so further analysis commenced.

General estimating equations (GEE) were used to calculate the differences between what the co-ordinators had anticipated would happen in response to the

legislation (Survey 1) and what they reported had actually occurred (Survey 2). Differences between the surveys were assessed by GEE based on logit (for dichotomous outcomes) or identity (for continuous outcomes) link functions. These used an exchangeable correlation matrix to model the interdependence between waves resulting from some participants being present in both waves. Any differences that were identified between Survey 1 and Survey 2, may have occurred as a result of the introduction of the smoke-free legislation.

Spearman's correlations were conducted to analyse relationships between a number of key variables. These were the co-ordinators ability to cope, increase in client demand pre and post legislation, increased funding, employment of new staff, increase in waiting times, introduction of waiting lists, reduction in frequency / duration of behavioural support, change in workplace activities and increase in service profile.

Pearson's correlations, t-test analysis and analysis of variance (ANOVA) were used to explore relationships between categorical and continuous data from Survey 1, Survey 2 and the IC data collected from SSS quarterly returns. Pearson's correlations enabled for exploration of the strength of relationships between two variables, for example between the number of new staff employed and a change in quit rates as recorded by IC data collected at the time that the legislation was introduced. T-test analysis explored distributions and tested whether the differences between two means were significantly different to zero, this was used for independent measures, ANOVA analysis enabled the data to be tested to observe whether the group means differed.

## **5.6 Results**

A total of 86 out of the 151 co-ordinators responded to Survey 2, resulting in a response rate of 57 %. This was lower than the 77 % (132/172) of co-ordinators who responded to Survey 1, conducted before the smoke-free legislation was implemented in July 2007.

The co-ordinators that responded to Survey 2 had a wide range of job titles. For example 45 (52 %) called themselves 'Smoking Cessation Manager' or 'Stop Smoking Service Co-ordinator'. Apart from these however, there were few other duplicates of job title. There were a large number of titles that included tobacco control and many other titles that included the phrases health improvement, public health or health development.

In 2008 a slightly higher percentage of services (87 %) provided a smoking cessation service to just one PCT, in comparison with 2007 (73 %). However in 2008 there was a slightly lower percentage of services providing a service to two or three PCTs than in 2007, as illustrated in Table 5.2.

Table 5.2: Number of primary care trusts supported by the stop smoking services in 2007 and 2008

Number of PCTs supported by SSS	% (Number) of SSS	
	2007	2008
1 PCT	73 (85)	87 (72)
2 PCTs	13 (15)	11 (9)
3 PCTs	9 (10)	2 (2)
Less than 1 PCT	6 (7)	NA

The mean estimated percentage change that the services experienced in the number of quit dates set in the run up to the introduction of the smoke-free legislation, during the first quarter of 2007-8 (i.e. April-June 2007), compared with the same quarter in 2006-7 was 16 % (range, -46 – 79 %). When asked the previous year, 91 % (108/119) of co-ordinators stated that they were expecting an increase in clients in the run up to the legislation. This expected increase was estimated at an average of 43 % (range, 7 – 250 %).

GEE were used to calculate the statistical significance of this finding. The mean percentage increase in demand from clients for SSSs in the run up to the legislation reported in Survey 2 (16 %, 95% confidence intervals (CI) = 12-20.5) was significantly lower than the mean anticipated increase in client demand that

the co-ordinators expected prior to the introduction of the legislation (43 %, CI = 35.3-50) (Chi-squared = 36.675,  $p < .0001$ ).

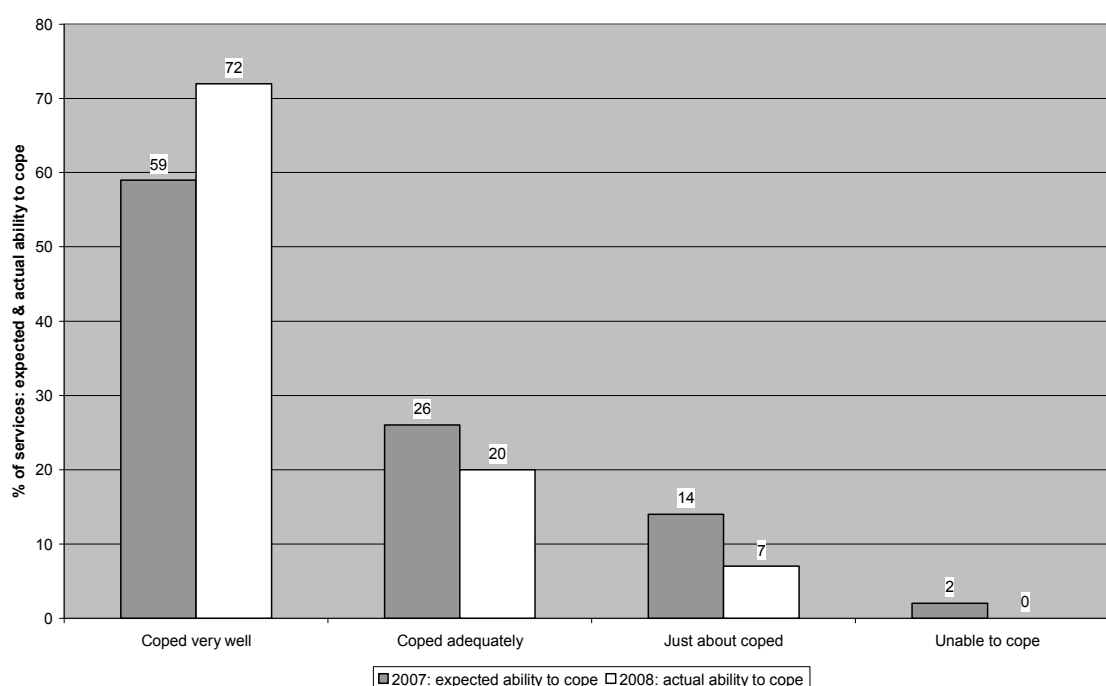
In Survey 2 co-ordinators were also asked what the actual percentage change in client demand was following the introduction of the legislation, in comparison with the same quarter the previous year. On average co-ordinators over estimated the expected increase in demand for their service following the introduction of the smoke-free legislation, however this difference was not statistically significant. The mean percentage increase in demand from clients for SSSs in the period following the introduction of the legislation reported in Survey 2 (37 %, range CI = 22.8-51) was lower than the mean anticipated demand (43 %, range CI = 35.3-50) (Chi-squared = 0.495,  $p = 0.482$ ).

When asked how well the co-ordinators felt their service had coped with any change in client numbers since the introduction of the smoke-free policy, 72 % (60/83) claimed to have coped very well. A further 20 % (17/83) said that they coped adequately, seven percent (6/83) said that they just about coped and none of the co-ordinators said that they were unable to cope.

This reported ability to cope was better than had been expected by the co-ordinators the previous year when they were asked how well they felt their service would be able to cope with a 25 % increase in client numbers. In Survey 1 just over half (59 %) felt that they would be able to cope very well with an increase of this size and about a quarter (26 %) felt they would cope adequately. Results can be seen in Figure 5.1.



Figure 5.1: Stop smoking service co-ordinators expected and actual ability to cope with increased client demand



It was reported by 24 % (17/71) of co-ordinators that they had received an increase in funding from April 2007. The average increase in funding was 21 % (range, 5 – 50 %). For 88 % (15/17) of these services the funding was still available from April 2008. The percentage that received increased funding was higher than expected by the co-ordinators in Survey 1, where only 15 % (CI = 11-20) of the services stated that they had been allocated or were expecting to be allocated increased funding from April 2007. This was statistically significantly different from the 24 % (CI = 17-31) of services who reported, in Survey 2, that they had received funding in April 2007 (Chi-squared = 4.24,  $p = 0.040$ ).

When reporting whether new staff had been employed from April 2007 in the lead up to the smoke-free legislation, a little over a quarter of co-ordinators stated that they had employed new core staff (specialists). It was reported that almost all of these were still employed a year later when Survey 2 was being conducted. Almost half of services had employed new sessional or part time advisors, of which most were still in post a year later. A little under a quarter of services

stated that they had employed new administrative staff in the lead up to the smoke-free policy. Approximately three quarters of these were still employed a year later. This is illustrated in Table 5.3.

Table 5.3: Predicted and actual staff employed from April 2007, and those still employed in April 2008

<b>New staff employed from April 2007</b>	<b>% (number) of SSSs</b>		
	<b>Predicted in 2007</b>	<b>Actual in 2008</b>	<b>New staff still employed in April 2008</b>
Core staff / specialists	33 (31)	28 (17)	94 (16)
Sessional / part time advisors	50 (47)	44 (19)	94 (18)
Administrative staff	23 (22)	22 (14)	79 (11)

The numbers employed were slightly different to those predicted by the co-ordinators in Survey 1. However only one of these differences was statistically significant, as illustrated below. The mean percentage of SSS co-ordinators who reported in Survey 2 that they had employed new core staff (28 %, CI = 19 – 48) was statistically significantly lower than the mean anticipated recruitment of new core staff prior to the introduction of the legislation (33 %, CI = 17 – 38) (Wald chi squared = 36.85,  $p < 0.001$ ).

The mean percentage of co-ordinators who reported in Survey 2 that they employed new advisors (44 %, CI = 33 – 55) was slightly lower than the mean anticipated recruitment of new advisors prior to the introduction of the legislation (50 %, CI = 40 – 60) (Wald chi squared = 1.06,  $p = 0.304$ ).

The mean percentage of SSS co-ordinators who reported in 2008 that they had employed new administrators (22 %, CI = 13 – 31) was slightly lower than the mean anticipated recruitment of new administrators prior to the introduction of the legislation (23 %, CI = 15 – 32) (Wald chi squared = 0.066,  $p = 0.797$ ).

Co-ordinators were asked what they did in the period leading up to and immediately following the introduction of the legislation to cope with any increased client numbers. A small amount of services introduced waiting lists, a year later a quarter of these were still in place. Few of the services increased waiting times on current waiting lists. The following year none of these increased waiting times were still in place. The duration or frequency of behavioural support provided had to be decreased by only a small amount of the services. This duration or frequency was still decreased in a third of those services a year later.

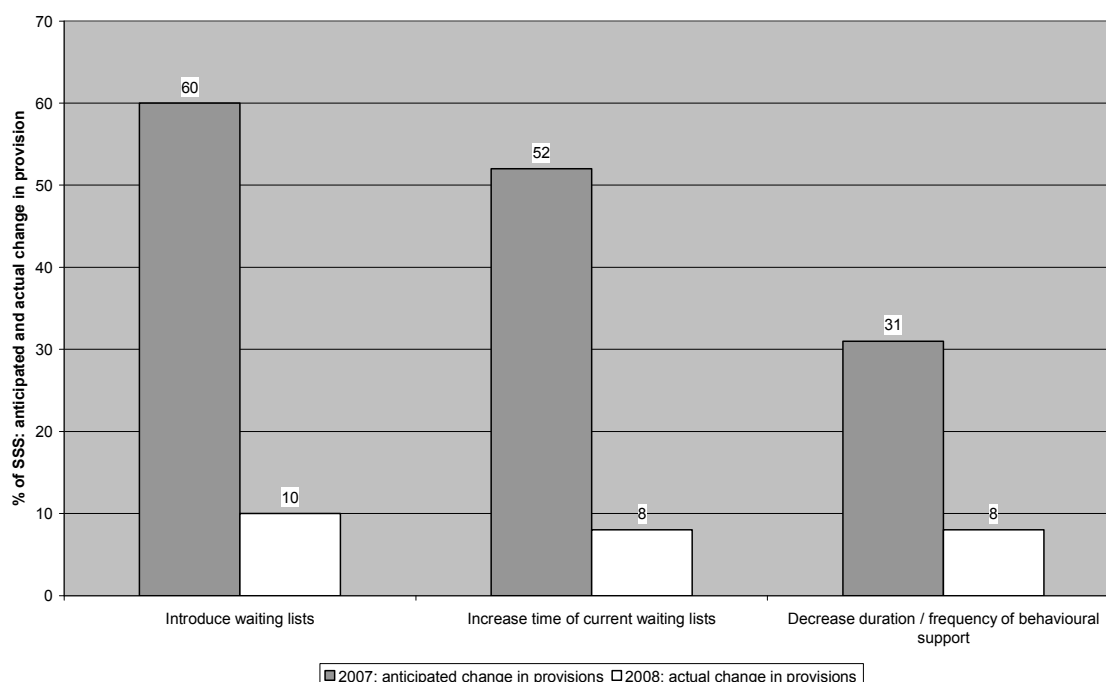
When compared with the responses from the 2007 survey, it was seen that the co-ordinators statistically significantly over estimated the amount of extra provision they would need to introduce to cope with increased client demand, as can be seen in the following paragraphs. The mean percentage of co-ordinators who reported in Survey 2 that they introduced waiting lists (10 %, CI = 4 – 17) was lower than the mean who anticipated introducing waiting lists prior to the introduction of the legislation (60 %, CI = 47 – 72), (Wald chi squared = 67.87,  $p < 0.0001$ ).

The mean percentage of co-ordinators who reported in Survey 2 that they had increased times on current waiting lists (8 %, CI = 2 – 14) was lower than the mean who anticipated that they would increase the time of their current waiting lists prior to the introduction of the legislation (52 %, CI = 40 – 65), (Wald chi square = 49.82,  $p < 0.0001$ ).

The mean percentage of co-ordinators who reported that they had decreased duration or frequency of behavioural support (8 %, CI = 2 – 14) was lower than the mean who anticipated that they would have to do so in Survey 1 prior to the introduction of the legislation (31 %, CI = 20 – 43), (Wald chi square = 19.21,  $p < 0.0001$ ).

These differences are illustrated in Figure 5.2.

Figure 5.2: Anticipated and actual change in provisions to cope with change in client demand at time of legislations introduction



Co-ordinators reported delivering increased training sessions in smoking cessation to a variety of professionals in the period leading up to and immediately following the introduction of the legislation. Professionals were either trained in providing brief advice (brief support given to the smoker in approximately five minutes) or they were trained to be community advisors (full support given to the smoker over a period of approximately five to six weeks). The co-ordinators stated that the most common professionals that brief advice training was given to were community midwives 42 % (36/86), local authority staff 40 % (34/86), hospital midwives 37 % (32/86) and workplace advisors 35 % (30/86). Co-ordinators reported that fewer professionals were trained as community advisors. The most common professionals to be trained as community advisors were pharmacists 49 % (42/86), workplace advisors 28 % (24/86), local authority staff 21 % (18/86) and General Practitioners (GPs) 19 % (16/86).

In Survey 1, co-ordinators had been asked whether they were intending to increase the number of smoking cessation training sessions for health and other

professionals at the time that the legislation was introduced. They anticipated that they would introduce more new training than they actually did. For many of the professionals it can be seen that this difference between the anticipated percentage and the actual percentage was significantly different. The most notable differences in the provision of brief advice were in the HCP groups of pharmacists and health visitors. In Survey 2 co-ordinators on average increased training in brief advice to these groups by a third. However in Survey 1 they had significantly over estimated how many more of these professionals they would be training. Co-ordinators had also significantly over estimated how many more professionals would be trained as a community advisor for all professional groups. The full list of professionals, Wald chi Square and p values can be seen in Table 5.4.

Table 5.4: Anticipated and actual professionals who received increased training at the time of legislation introduction

Professional group	% (number) of SSSs		
	Anticipated increased training (2007)	Brief advice training actually provided (2008)	Community advisor training actually provided (2008)
GP	37 (27)	34 (29) $\chi^2 = 0.287$ , $p=0.59$	19 (16) $\chi^2 = 12.50$ , <b><math>p&lt;0.0001</math></b>
Pharmacist	70 (50)	33 (28) $\chi^2 = 43.87$ , <b><math>p&lt;0.0001</math></b>	49 (42) $\chi^2 = 14.11$ , <b><math>p&lt;0.0001</math></b>
Dentist	29 (21)	26 (22) $\chi^2 = 0.327$ , $p=0.567$	9 (8) $\chi^2 = 19.82$ , <b><math>p&lt;0.0001</math></b>
Health Visitor	53 (39)	31 (27) $\chi^2 = 15.16$ , <b><math>p&lt;0.0001</math></b>	19 (16) $\chi^2 = 37.24$ , <b><math>p&lt;0.0001</math></b>
Community midwife	35 (26)	42 (36) $\chi^2 = 1.44$ , $p=0.23$	16 (14) $\chi^2 = 14.00$ , <b><math>p&lt;0.0001</math></b>
Hospital midwife	33 (24)	37 (32) $\chi^2 = 0.559$ , $p=0.455$	1 (1) $\chi^2 = 25.89$ , <b><math>p&lt;0.0001</math></b>
Workplace advisor	49 (35)	35 (30) $\chi^2 = 6.54$ , <b><math>p=0.011</math></b>	28 (24) $\chi^2 = 14.33$ , <b><math>p&lt;0.0001</math></b>
Local authority staff	46 (34)	40 (34) $\chi^2 = 1.77$ , $p=0.184$	21 (18) $\chi^2 = 22.29$ , <b><math>p&lt;0.0001</math></b>

$\chi^2$  = Wald chi Squared value, p = level of significance, statistically significant values in bold

In 2008 co-ordinators were asked whether they had changed how they provided cessation support within workplaces since the introduction of the legislation, 59 % (CI = 49-70) (47/80) had done so. This was slightly less than had been predicted in Survey 1 (68 %, CI = 60-77) (79/116). This difference however was not statistically significant (Wald chi squared = 3.44,  $p=0.064$ ).

When asked for free text responses about what these changes were, some co-ordinators suggested that they had made both positive and negative changes. For example positive changes to workplace activities included employing specialist workplace advisors, providing more smoking cessation groups within workplaces and publicising their service more in workplaces. However some negative changes were also reported. For example, it was said that workplaces no longer asked for their service and that interest had decreased.

Survey 2 asked some questions, which had not been included in Survey 1. These focused upon the profile of the service, whether the co-ordinator felt the service was prepared for the legislation and whether they would have done anything different in relation to their preparation.

It was thought by 85 % (69/81) of co-ordinators that the smoke-free legislation helped to increase the profile of their service, 59 % (41/69) of these believed that the increased profile had been maintained.

When co-ordinators were given the opportunity to provide free text explaining whether they would do anything differently in preparation for the smoke-free legislation, a few answers were provided. It was suggested by some that they would not change anything about their preparation, however, others highlighted that they would have made changes. For example, increased the media coverage and local publicity about the smoke-free legislation and their service, made sure that a higher capacity of staff were employed at an earlier date and improved the links between the SSS and other related departments.

Finally, co-ordinators were given the opportunity to comment upon anything else in relation to the implications of the smoke-free legislation upon their service. Of those that responded, their responses included the importance of keeping the awareness of their service high. Co-ordinators also stated that although they did not feel they had considerably more quitters, those who did quit found it easier to stay stopped. This was attributed to the legislation. The co-ordinators comments were, in general, showing support for the smoke-free legislation, as the two examples below illustrate.

*The smoke-free legislation has increased clients motivation to stop and remain stopped, they (clients) say the smoke-free legislation makes it easier*

*Since the legislation, people seem more receptive to our advisors, there are more people approaching and asking for support*

A Spearman correlation was carried out to determine whether certain variables had captured information about the same notion or were distinct from each other. These items were the co-ordinators ability to cope, increase in client demand pre and post legislation, increased funding, employment of new staff, increase in waiting times, introduction of waiting lists, reduction in frequency / duration of behavioural support, change in workplace activities and increase in service profile.

A number of significant correlations were found. The correlation matrix can be found in the appendix (see Appendix 5.3). Services that saw a pre legislation increase in client demand were positively correlated with a post legislation increase in client demand ( $r=0.500$ ,  $p<0.001$ ), as well as being positively correlated with employing new core staff ( $r=0.262$ ,  $p=0.02$ ). Additionally services that saw a post legislation increase in client demand were positively correlated with an increased service profile ( $r=0.265$ ,  $p=0.02$ ). Services that had an increase in funding were positively correlated with employing new core staff ( $r=0.382$ ,  $p<0.001$ ) and new advisors ( $r=0.369$ ,  $p=0.002$ ). Further to this, services that employed new core staff were positively correlated with services that employed new advisors ( $r=0.454$ ,  $p<0.001$ ). It was found that services that employed new

advisors were positively correlated with increased profile of their service ( $r=0.285$ ,  $p=0.01$ ). Services that employed new administrative staff were positively correlated with changes to workplace activities ( $r=0.266$ ,  $p=0.02$ ). Finally, services that introduced waiting lists were positively correlated with increased times of waiting lists ( $r=0.413$ ,  $p<0.001$ ). This therefore suggested that the measured variables had captured information about the same notion.

Data from the baseline and follow-up surveys were analysed against routine national IC data. Only services that had completed both the baseline and follow-up surveys, and had IC data available were included in the analysis. This was a total of 48 services.

Change in successful quit rate from before to after the implementation of the legislation, as recorded by the IC was the dependent variable. This was calculated by subtracting the successful quit rate at time 1 (April – June 2007, pre legislation) from the successful quit rate at time 2 (July – September 2007, post legislation) for each service. Independent variables were percentage of clients that received group treatment, month that publicity was introduced, publicity explicitly mentioning legislation, percentage increase in clients pre and post legislation, services ability to cope with increased client demand, increase in funding, employment of new core staff and advisors, introduction of coping techniques, changes to workplace activities and changes to service profile. Pearson's correlations were conducted between the continuous independent variables and the dependent variable. T-tests were conducted when the independent variable had two categories. One-way ANOVAs were conducted when the independent variable had more than two categories. There were no statistically significant results.

## **5.7 Discussion**

This national survey provided an overview of English SSSs following the implementation of the smoke-free legislation in England. It allowed for comparison with the pre-legislation survey of SSS co-ordinators. It described how services were structured and highlighted the extent to which co-ordinators felt



that they were able to cope with any rise in client numbers as a result of smoke-free legislation. The main findings from this survey can be grouped into three main themes. These themes were Changes to service structure and functioning, Differences between the stop smoking services and Lessons learnt by stop smoking services. These themes are discussed in turn below, followed by some reflection on the limitations of the study.

#### 5.7.1 Changes in service structure and functioning

There were a large number of co-ordinators who had a job title that included the wording 'tobacco control' suggesting the co-ordinators role focused on the wider area of tobacco control and not purely smoking cessation. Many of the other titles included the phrases health improvement, public health or health development. This suggested that many SSS co-ordinators were also involved in wider health activities.

There were a number of changes to the SSSs structure and functioning from pre to post legislation. There was a slight shift in the number of PCTs the services provided a service to. A higher proportion of SSSs provided a service to just one PCT following the introduction of the legislation. This shift however was unlikely to be directly or solely due to the legislation and more likely to have occurred due to NHS restructuring that occurred around this time (Klein, 2006).

SSSs reported on average a 16 % increase in client demand for their service in the run up to the introduction of the legislation. However this increase was significantly lower than co-ordinators had predicted it to be in Survey 1. This finding could suggest that even though an increase was seen it was relatively small in comparison with the co-ordinators expectations. Co-ordinators also experienced a lower increase in demand for their service following the introduction of the legislation than they had expected, although this difference was not significant. This could imply that England's smoke-free legislation resulted in a lower increase in demand for support than had been seen in other smoke-free countries that had implemented smoke-free legislation (Ministry of Health 2006; Lund, 2007). It must be noted however that direct comparisons with

other countries were difficult as the UK was the only country with a free at the point of use national network of SSSs which had been established for many years when the legislation was implemented. England also employed a system where medication to assist with smoking cessation was freely available and could be acquired over the counter in pharmacists (McNeill et al., 2005b). There may also have been an increase in the number of smokers quitting independently of SSSs, which could explain the lower than expected observed increase in demand (see Chapter 9).

Alternatively, this difference between expected and actual increase could have been explained by the extent of the preparation that the English SSSs exerted pre-legislation. By increasing publicity of the legislation and the service in the run up to the legislation, the increase in clients may have been dispersed over a longer period of time pre legislation (Arnott et al., 2007). This may have made the increase around the time of implementation appear small in comparison with their expectations.

A quarter of services reported that they received increased funding from April 2007, this was a higher number than had expected to receive funding when asked in Survey 1. This could have suggested that services had been informed that they would not be receiving increased funds, and then this decision had been revoked and funds were provided. Alternatively it could mean that in the preceding months co-ordinators were unsure or ill-informed about the funding that would be available to them. In either scenario, this lack of knowledge may have caused difficulties for co-ordinators when planning their budget, marketing programmes, community projects or appointment of new staff.

Co-ordinators had been relatively accurate with their estimations of how many new staff they would be employing around the time of the legislation. New core staff, advisors and administrative staff were employed by many of the services around the time of the legislation. This may have been to cope with the observed increase in client demand. However there may have been other reasons for the employing of new staff, for example, restructuring within the service, resignation of current staff or to create more outreach posts to work with the harder to reach

groups of smokers (Department of Health, 2010). Without the co-ordinators qualitatively clarifying this it is difficult to draw conclusions of their motives.

Co-ordinators significantly overestimated the coping techniques that they would need to cope with any increase in client numbers. In terms of introducing waiting lists, increasing times of current waiting lists and decreasing the frequency or duration of behavioural support, the majority of co-ordinators had expected to employ these methods. However only a small percentage did, fewer than ten percent. This may have been for a number of reasons. As previously mentioned the co-ordinators had expected to see a higher increase in demand than they witnessed, thus this reduction in expected clients, may have meant they did not need to employ many coping mechanisms. Alternatively the services may have been adequately equipped to cope with the increased demand and therefore did not need to turn to these further techniques. It may also have been the case that the co-ordinators employed other ways to cope with the increase in demand, other than the three methods listed in the survey.

Increased training was reported to be provided to HCPs both in giving brief advice and as community advisors. However, as with their estimations of increased coping techniques, the co-ordinators significantly over estimated the amount of increased training that they would provide within their service. This over estimation may have again been due to a lower than expected increase in client demand, a greater than expected ability to cope or a lack of knowledge about their budget for the period when the legislation was implemented.

It was interesting to note that comparison of the findings from Survey 1 and 2 with IC data of successful quit attempts did not allude to any statistically significant conclusions. This may have been for a number of reasons. It could have been the case that the IC data did not have any relationship with the structure and functioning of the SSSs. This was unlikely however, as IC data was generated through SSSs quarterly returns. Alternatively, it may have been the case that the analysis did not have enough power to detect any relationships due to the low number of services involved in the analysis. Only 48 services were included in the analysis involving the IC data. However this could not have been

rectified as only 48 services had completed both the baseline and follow-up surveys, and had IC data available.

#### 5.7.2 Differences between the stop smoking services

It was positive to find that following an increase in client demand, almost three quarters of co-ordinators felt that they had coped very well. One fifth felt that they had coped adequately and none felt that they had been unable to cope. This finding alone may be encouraging as it could illustrate the ability of the SSSs to adapt to this change. Further to this, the co-ordinators felt that they coped better than they had expected to, almost one fifth had expected that they would just about cope or be unable to cope. However it may have been the case that there was a lower than expected increase in client demand for the services, thus they were more able than expected to cope with this smaller increase.

Spearman correlations suggested that SSSs that saw an increase in client demand in the run up to the legislation were more likely to see an increase post legislation as well. This was to be expected as a service that had experienced more clients accessing the service in the run up to the legislation would most likely maintain this increased level of demand once the legislation had been introduced.

Services that saw an increase in client demand pre legislation were more likely to employ new core staff in order to cope with this increase demand. It may alternatively have been the case that if new core staff had been employed, this may have lead to an increase in SSSs capacity and marketing, thus leading to an increase in client recruitment.

Where services believed their profile had increased following the introduction of the legislation, this could explain the finding that they were more likely to experience a post legislation increase in client demand. An increased profile could have resulted in the SSS being more accessible, more visible and more successfully marketed. In these instances services were unsurprisingly likely to attract more clients (Department of Health, 2010). Those services that believed

their profile had increased were also more likely to employ new advisors, this may have been due to the previously mentioned increase in client demand.

An increase in funding in some services may have been an explanation for the finding that these services were more likely to employ new core staff and new advisors.

#### **5.7.3 Lessons learnt by stop smoking services**

It was interesting that a large proportion of co-ordinators reported that they would not do anything differently if they were given the chance to experience the introduction of the legislation again. This could suggest that English SSSs were ready for the legislation and their preparation enabled them to cope with the changes and challenges that they faced. This may have resulted from a combination of co-ordinator planning, government campaigning, learning from the past experiences of other smoke-free countries and the team work of the SSS. In comparison with other countries, England successfully linked the smoke-free legislation with smoking cessation. For example NHS campaigns provided information about the forthcoming legislation, whilst also providing contact details of SSSs and information about quitting (Department of Health, 2009a). This may have increased the numbers of smokers attempting to quit as a result of the legislation. However a number of areas for improvement were suggested including improved links between SSSs and other related departments and increased local media coverage.

### **5.8 Limitations**

A number of limitations within this research can be highlighted. The reliability of the co-ordinators responses could be questioned. It could be suggested that the co-ordinators may not have been honest with their responses, in fear of painting their service or the NHS in a negative light. In response to this however, the surveys were confidential and only the researcher was aware of the name of the

service that the co-ordinator managed. It was not compulsory for the co-ordinators to include any identifiable data, however all of the co-ordinators did so.

Co-ordinators were asked to think back to when the legislation was implemented and remember what was happening within their service. They were asked to remember details from the preceding months, thus re-call bias and errors with self-report may have led to some unreliability within their responses. Further to this, in some cases the co-ordinator in post had changed between the two surveys. This meant that although the two surveys were answered about the same service, the co-ordinators may have held different perspectives about the legislation. Due to the time delay between the two surveys, this limitation could not have been overcome.

Due to the time that the survey was conducted eg, pre and post legislation, the phrasing of the repeated questions were slightly different between the two surveys. It could have been possible that the change of wording may have affected the co-ordinators response, however, this could not have been avoided. Finally, the response rate in the current research was not as high as in the baseline survey. It is felt however, that the response rate of 57% was large enough to gain a representative sample.

## **5.9 Conclusion**

It can be seen that the introduction of the smoke-free legislation in England had an impact upon English SSSs. There was a reported increase in client demand for the services, alongside other changes such as the employment of new staff, increase in health professionals smoking cessation training and increase in the SSSs profiles. The nature of the research could make it difficult to implicate causation, as the research does not happen in isolation and there maybe other contributing factors for changes that occurred. However the current research suggested that many of the changes that took place within SSSs around the time of the smoke-free legislation could, in part, be attributed to the introduction of the smoke-free legislation.



## **Chapter 6: Interviews With National Health Service Stop Smoking Service Staff**

### **6.1 Context**

Interviews with National Health Service (NHS) stop smoking service (SSS) staff were conducted in June and July 2008. This was one year following the introduction of the smoke-free legislation in England (Health Act, 2006). Around this time there were two NHS advertising campaigns running with the intention of increasing the number of people trying to quit smoking. The first of these was 'Getting Off Cigarettes', which explained to smokers how using NHS SSSs could significantly improve their chances of quitting. This ran from December 2007 to April 2008. The second campaign was entitled 'Wanna Be Like You', it ran from June to September 2008 and highlighted that parental smoking dramatically increased a child's chances of becoming a smoker (Department of Health, 2009c). These tobacco control events, which occurred around the time of the interviews, have been highlighted as they may have had some impact upon the staff's responses.

### **6.2 Introduction**

In order to explore how NHS SSSs coped and adapted to the smoke-free legislation and any impact that the legislation had upon them, it was important to understand more about NHS SSSs. The previous national surveys (see Chapters 4 and 5) examined the structure and functioning of all SSSs in England before and after the introduction of the legislation, in a quantitative manner. In addition to the national surveys, this qualitative research intended to gather a more in depth understanding of the SSSs from the perspective of the SSS staff. The research focused upon two services in England and through a number of interviews explored the staff's opinions and attitudes towards the service, smoke-free legislation, smoking cessation generally and other related topics.



This method of interviewing staff who were likely to be effected by the smoke-free legislation was particularly suitable to this research as Walker (1985) illustrated “What qualitative research can offer the policy maker is a theory of social action grounded on the experiences – the world view – of those likely to be affected by a policy decision” (Walker, 1985, p19).

### **6.3 Ethical approval**

Ethical approval for the study was sought and gained from the University of Bath, Department of Psychology’s Ethics Committee; no alterations were required to the study protocol. Ethical approval is needed to ensure that participants are fully informed about their involvement and about the research, that they participate voluntarily and that they are aware that they can withdraw from the research at any time. Additionally ethical approval ensured that participants were not endangered in any way by the research and that their responses would be treated confidentially.

### **6.4 Aims and objectives**

The aim of the research was to understand more about the SSSs and their staff. It aimed to examine the impact of the smoke-free legislation for SSSs and smoking in general. This was achieved via two objectives:

- Gaining a more in depth understanding of NHS SSSs from the perspective of the SSS staff allowed for information to be gathered which could highlight what it is like to work within a SSS, how the services are viewed from an insiders point of view and changes or improvements that could be implemented with the services
- Exploring the smoke-free legislation and smoking generally in more detail from the perspective of the SSS staff intended to gain an understanding of the impact

of the legislation, how it effected service provision, clients and attitudes towards smoking in more general from the eyes of a service provider

## **6.5 Methods**

### **6.5.1 Research settings**

Research was conducted within two English SSSs; these services were located in the cities of Mackersbury and Stoneyshore. To maintain anonymity, SSS names and cities have been changed. Table 6.1 provides a profile of the two cities.

#### **6.5.1.1 Mackersbury and Stoneyshore: a comparative profile**

Mackersbury was a large city with a population of approximately 410,487. Stoneyshore was considerably smaller, with a population of approximately 248,103. At the time of the research, smoking prevalence in both cities was higher than the English national average of 22 %, with 25 % and 24 % of the population smoking in Mackersbury and Stoneyshore respectively.

Mackersbury had a larger proportion of its population working in higher and intermediate managerial jobs and supervisory, clerical and junior managerial jobs than Stoneyshore (16 % and 23 %; 12 % and 22 % respectively). However figures for both of these cities were lower than the English average. Stoneyshore had a higher proportion of its population in skilled manual, semi skilled and unskilled jobs than Mackersbury (14 % and 15 %; 10 % and 13 % respectively). For both of these groups of workers Stoneyshore's figures were higher than the English average, whereas Mackersbury's were lower (Office for National Statistics (ONS), 2008a).

Both cities had large areas of deprivation, as well as having areas of affluence, however overall Stoneyshore was a more deprived city, with more of its population being unemployed, having higher rates of teenage pregnancy, higher infant mortality

Table 6.1: Demographic statistics for Mackersbury and Stoneyshore

	<b>Mackersbury</b>	<b>Stoneyshore</b>	<b>England</b>
<b>Residents</b> count (2006)	410,487	248,103	49,138,831 (2001)
<b>Number of dwellings</b> count (2006)	176,990	109,782	21,660,475 (2001)
<b>Ethnic Group</b> % (2006)			
White	89	96	89
Mixed	2	1	2
Asian or Asian British	4	1	5
Black or Black British	3	1	3
Chinese or other	2	1	1
<b>Social grade</b> count (2001)			
AB: Higher and intermediate managerial / administrative / professional	64,446 (22 %)	30,818 (16 %)	8,520,649 (22 %)
C1: Supervisory, clerical, junior managerial / administrative / professional	93,926 (32 %)	53,377 (29 %)	11,410,569 (30 %)
C2: Skilled manual workers	40,929 (14 %)	33,905 (18 %)	5,780,577 (15 %)
D: Semi-skilled and unskilled manual workers	53,058 (18 %)	37,509 (20 %)	6,538,308 (17 %)
E: State benefit, unemployed, lowest grade workers	45,763 (15 %)	31,808 (17 %)	6,143,201 (16 %)
<b>Life expectancy</b> years (2004 – 2006)			
Male	77	77	77
Female	81	82	82
<b>General health</b> % (2001)			
Good	69	67	69
Fairly good	22	23	22
Not good	9	10	9
<b>Long term illness</b> % (2001)	18	21	18
<b>Benefit claimants</b> % (2005)	14	17	14
<b>Unemployment rate</b> % (2006 – 2007)	5	6	6
<b>Average value of detached house</b> £ (2006)	335,290	259,808	314,542
<b>Estimated smoking prevalence</b> % (2005)	25	24	22

Source: Adapted from ONS (2008a)

rates and less of the population with good general health and more long term illness. More people were on benefits, unemployment rates were higher and the value of property was lower (ONS, 2008a) (see Table 6.1).

#### 6.5.1.2 Mackersbury stop smoking service

Mackersbury SSS was set up in 2000. Mackersbury had a smoking prevalence of around 25 %, which equated to approximately 83,803 smokers (Mullis et al, 2008). The SSS in Mackersbury was managed by a tobacco control program manager, who as well as co-ordinating the service, was also responsible for wider tobacco control initiatives across Mackersbury. There were five core staff employed whose roles were based within the SSS. In addition, there were over 400 community advisors who were trained to carry out smoking cessation support alongside their main role, for example; practice nurses, pharmacists, teachers and youth workers. The service also had two administrative staff. It was funded by Department of Health smoking cessation funding, and supplemented by resources from the Primary Care Trust (PCT) (Bauld et al., 2008).

Clients were seen in Mackersbury on a one to one basis, there were no groups running when this research was conducted. As illustrated in the pre-legislation survey, reported in Chapter 4, other types of smoking cessation intervention provided to clients in Mackersbury included drop in services, computer software, telephone advice and self-help materials. Clients were seen in primary care (73 %), in pharmacies (18 %), at the service's central base (four percent), in voluntary or local authority venues (four percent), or in the smoker's workplace (one percent) (see Chapter 4). Clients were most commonly prescribed nicotine replacement therapy (NRT) and bupropion (zyban) by the service, they could also receive varenicline (chamfix) via the General Practitioner (GP) (Bauld et al., 2008).

Mackersbury claimed that they offered specialised support to a number of target groups including pregnant women, people with mental health problems, young people and prisoners.

#### 6.5.1.3 Mackersbury and the smoke-free legislation

The co-ordinator from Mackersbury SSS completed the national survey, Survey 1, before the smoke-free legislation in England was implemented (see Chapter 4). They stated that they expected there to be a ten percent increase in clients contacting their service in the run up to the smoke-free legislation. The co-ordinator felt that they would cope adequately with a 25 % increase in clients, just about cope with a 50 % increase in clients and would be unable to cope with a 100 % increase in clients. Mackersbury did not plan to increase cessation training for health care professionals (HCPs) in the run up to the legislation. However they did plan additional publicity in the form of local radio, newspaper and magazine advertisements. The co-ordinator did not complete the second national survey, Survey 2, that was conducted a year following the introduction of the legislation (see Chapter 5).

#### 6.5.1.4 Stoneyshore stop smoking service

Stoneyshore SSS was set up in 1999. Stoneyshore had a smoking prevalence of around 24 %, which equated to approximately 49,655 smokers (Mullis et al., 2008). The service was run by a co-ordinator who, in a similar way to Mackersbury, played a large role in wider tobacco control within Stoneyshore. There was a team of six core advisors and over 900 registered community advisors who had been trained to provide cessation alongside their everyday roles. These included practice nurses, receptionists and dental staff. They also had two administrators, as well as two other tobacco control focused non-clinical staff (Bauld et al., 2008).

Funding for Stoneyshore SSS predominantly came from Department of Health smoking cessation funding, as well as local area agreement funding, neighbourhood renewal funding and money from other funding bodies (Bauld et al., 2008).

The majority of clients (82 %) were treated on a one to one basis, through both pre-booked appointments and drop in sessions. Other treatment models included being provided with self-help materials, group treatment and telephone support. Cessation support was provided at a range of venues including the SSS head office, pharmacies and council buildings. NRT, bupropion (zyban) and varenicline (chamfix) were all available for clients (Bauld et al., 2008).

Stoneyshore claimed to provide specialist support for a variety of specific groups, including pregnant women, people with mental health problems, black and minority ethnic (BME) groups and hospital inpatients (Bauld et al., 2008).

#### 6.5.1.5 Stoneyshore and the smoke-free legislation

The co-ordinator of the Stoneyshore SSS did not complete Survey 1 (see Chapter 4), however did complete the second national survey, Survey 2 (see Chapter 5). They stated that they did not see an increase in the number of clients accessing their service in the run up to the legislation, however they did see an increase following the introduction of the legislation, this was estimated at 24 %. The co-ordinator felt that they coped very well with this increase in client numbers, despite not receiving an increase in funding. They did not employ any new core staff, or implement any strategy plans, such as introducing waiting lists, however they did train up more community advisors. The co-ordinator stated that the smoke-free legislation had helped to increase the profile of their service, and that this profile had been maintained.

### 6.5.2 Interview content

The interview content guide was developed with reference to a number of sources. Issues were identified from both Survey 1 and Survey 2, in relation to preparation for smoke-free legislation, changes in the number and type of clients and recent changes to the service structure (see Chapters 4 and 5). The interview content guide was also informed by relevant literature and discussions with supervisors. It consisted of 28 questions, almost all of these were open ended. These were split into four sections, the complete guide can be found in the appendix (see Appendix 6.1).

#### 6.5.2.1 General questions about the staff and the stop smoking service

Staff were asked questions about their job, for example, their job title, details of their role within the SSS and their time in post. They were asked how they would describe what they did daily to a lay person. Other questions related to changes that they had seen within the service during their time in post. Clients were discussed, for example, how many clients they treated in an average week, what a 'typical' client would be like and what expectations they felt the clients held when they first attended the service.

#### 6.5.2.2 Smoke-free legislation

Questions were asked relating to the smoke-free legislation in England. For example their initial opinion of the legislation before it was implemented and their current opinion of the legislation. Staff were asked whether they felt that the legislation had made people more aware of the SSS and whether it had impacted upon the number or type of clients that were accessing the service. Discussion also included changes in smoker's motivation to quit smoking and remain abstinent in light of the legislation. Further to this, staff were asked whether they felt that their role had changed since

the introduction of the smoke-free legislation and whether they felt a change in the pressure upon them to produce quitters.

#### 6.5.2.3 Their career and the stop smoking service

Staff were then asked about training and promotion opportunities within the SSS and the NHS in general. They were also asked about their future career within smoking cessation.

#### 6.5.2.4 Smoking cessation and the stop smoking service

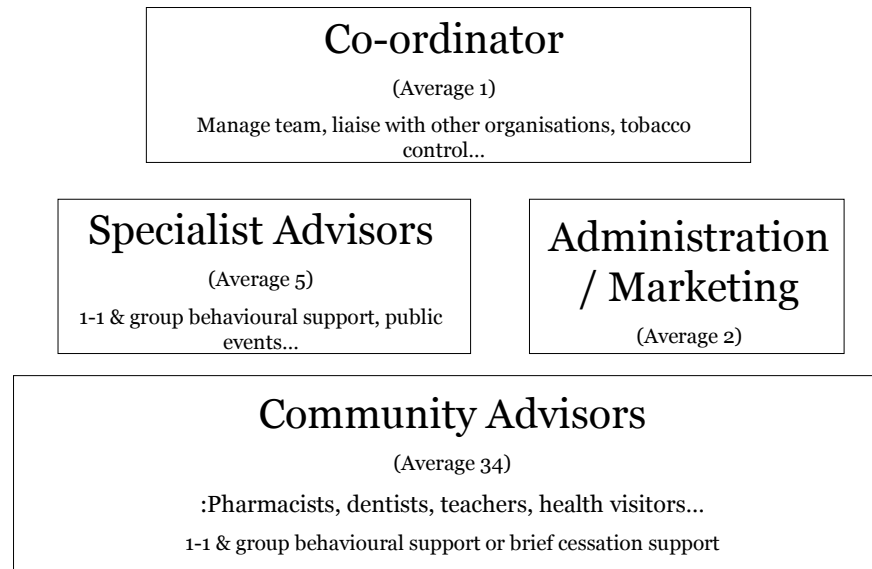
Further questions related to how they would change the SSSs if they had unlimited money and what improvements they would make to the service to make it easier for clients to quit smoking. They were asked about the challenges that the SSSs faced and suggestions for overcoming these.

#### 6.5.3 Stop smoking service staff structure

A rough outline of the structure of the NHS SSSs is illustrated in Figure 6.1, the averages were taken from Survey 1 (see Chapter 4). The services were not required to be run as shown in Figure 6.1, however this was often found to be the case. Staff were employed on a full and part time basis, as well as being employed via job share and casual bank positions.



Figure 6.1: Structure of stop smoking service



#### 6.5.4 Sample selection

The two services were chosen for a number of reasons. Both services were located within and provided a service to fairly large cities, where there was a mix of both affluent and more deprived populations. The services were located within the same region and were of acceptable travelling distance from the researcher's base.

The contact details of the selected services' managers were taken from the NHS SSS website. An email was sent to introduce the research, briefly explain the research design and ask whether they felt that their service would be able to be involved. A summary of the overall PhD research was attached with the email, to provide context for where the staff interviews would be located within the thesis. This initial contact was made in February 2008.

Due to the time of year and the workload of the SSS co-ordinators, no immediate response was received from either service. For one of the services it transpired that the co-ordinator had left their post, and another member of staff was covering their

role. This member of staff had demonstrated interest in being involved with the research; they were therefore contacted directly to begin making arrangements.

A meeting was arranged in early April with five of the staff from the Mackersbury SSS to confirm their involvement, discuss the interview content guide and organise the timings of the interviews. An overview of the research had been circulated amongst the staff so that they understood what the research involved and why it was taking place. A date to interview the staff was finalised for early June 2008.

In May 2008 the Stoneyshore SSS co-ordinator confirmed that they were happy for Stoneyshore to be involved with the research and it was decided that the interviews would be conducted over a two day period in July 2008. Information about the research was provided for the Stoneyshore co-ordinator to circulate amongst their staff.

#### 6.5.5 Sample characteristics

Table 6.2 illustrated the characteristics of the sample from Mackersbury SSS. The individuals job title, job description and time in post have been provided, along with their pseudonym. One male and six females were interviewed from Mackersbury.

Table 6.2: Sample characteristics from Mackersbury stop smoking service

<b>Name*</b>	<b>Job title</b>	<b>Job description</b>	<b>Time in post^</b>
Amy	Health promotion specialist	Setting up smoking cessation initiatives in specialist areas, such as prisons and hospitals	6 months
Beth	Smoking cessation specialist	Running clinics to help people stop smoking and training others to provide cessation support	3.5 years
Colin	Health promotion specialist	Smoking advisor, helping people to stop smoking and training other smoking advisors	1 year
Dorothy	Health promotion specialist	Educating the public about smoking and smoke-free initiatives	1 year
Elisa	Primary care relationship manager	Helping primary care providers to provide smoking cessation to their patients	4 months
Felicity	Tobacco control programme manager	Overseeing all tobacco control and smoking cessation within the PCT	2 months
Lilly	Community stop smoking advisor	Supporting people to quit smoking on a one to one basis	3.5 years

\*To maintain anonymity, participant and SSS names have been changed

^At time of interview

Table 6.3 described the sample from the Stoneyshore SSS. The participant's pseudonym has been provided, as well as their job title, job description and time in post. One male and six females were interviewed in Stoneyshore.

Table 6.3: Sample characteristics from Stoneyshore stop smoking service

<b>Name*</b>	<b>Job title</b>	<b>Job description</b>	<b>Time in post<sup>^</sup></b>
Gaby	Co-ordinator for smoking in pregnancy	Supporting and advising smokers who wish to quit, particularly pregnant women	8 years
Hannah	Specialist stop smoking advisor	Helping smokers who wish to quit and helping to increase the profile of the service	4 years
Isabella	Smoking cessation and tobacco control manager	Setting up, managing and running services to help people quit smoking and overseeing tobacco control initiatives in the area	6 years
Jessica	Specialist stop smoking advisor	Helping people to stop smoking and encouraging people to quit through public events	6 weeks
Kristen	Specialist quit smoking advisor	Helping people to stop smoking using specialist knowledge	5.5 years
Matilda	Specialist stop smoking advisor	Helping people to stop smoking in one to one or group settings	5 years
Nathen	Training and development co-ordinator	Assistant manager of the stop smoking service, focusing on training	3.5 years

\*To maintain anonymity, participant and SSS names have been changed

<sup>^</sup>At time of interview

#### 6.5.6 Pilot interview

A small number of staff at the Mackersbury service (n=four) were consulted as to the suitability of the questions, no changes were deemed necessary. A pilot interview was then conducted with a colleague from the University of Bath. She was working as a researcher and lecturer in health psychology and had considerable interview experience. She also had several years of experience working as a stop smoking specialist in an NHS SSS. She could therefore provide suggestions for improvement from a researcher perspective, as well as from the perspective of the SSS staff. A number of slight adaptations were suggested, these were made and the interview

content guide was finalised. Data collected in this pilot interview was not included in the main analysis.

#### 6.5.7 Collection of data

Six of the seven interviews with the staff from Mackersbury SSS were conducted on the same day. The seven interviews with the Stoneyshore staff were conducted over two days. The researcher met and interviewed these 13 members of staff at their respective SSS headquarters, in a quiet comfortable room. The interviews were digitally sound recorded. In each interview the researcher introduced herself to the interviewee, gave them another copy of the participant information sheet and asked them to sign the consent form. She re-enforced that participation was confidential and voluntary, that they could withdraw at any time and that responses would be anonymous. The interviews varied in length from 20 minutes to one hour and 15 minutes. A copy of the consent form and information sheet can be found in the appendix (see Appendix 6.2 and 6.3).

A further interview with a community advisor from Mackersbury was conducted a few weeks following the initial interviews. This was carried out within the doctor's surgery where the advisor worked.

#### 6.5.8 Analysis

All interviews were recorded on a digital voice recorder and downloaded onto computer file. The interviews were then transcribed by the researcher. Each participant was given a pseudonym; participant 1's pseudonym began with an A, participant 2's with a B, participant 3's with a C and so on, the names matched their sex. Where there is an R within the quotes, this represented where the researcher was talking.

Framework analysis was used to explore, understand and interpret the data. This method of qualitative analysis combined a number of interrelated stages, relying upon the researcher to use knowledge and creativity to determine meaning, conclusions and a logical 'story'. Framework analysis involved a systematic method of forming tables, and sorting through data following a number of key themes. The structured nature of framework analysis meant that the method could be successfully documented and replicated (Ritchie and Spencer, 2002).

There were five key stages of framework analysis, these were familiarisation, identifying, indexing, charting and mapping and interpreting (Ritchie and Spencer, 2002). The researcher became familiar with the data by reading the transcripts and listening to the interviews repeatedly (familiarisation). Whilst reading through the scripts, relevant ideas, concepts and possible themes were noted in the margin (identifying a thematic framework). These notes were a mixture of section headings that arose directly from the questions such as the participant's role, client's motivation to quit smoking and a change in the number of smokers. Other preliminary themes were concepts that many of the staff discussed such as targets and a passion for smoking cessation. There were 32 themes at this stage, some of these were common, and others were miscellaneous. Some of the miscellaneous themes were joined together if they were only mentioned by one member of staff and came under a more general title.

The researcher then noted where the 32 themes arose from and the relevant sections of text were highlighted. This stage was called indexing and was initially started by hand, using paper and a highlighter, as the researcher wanted to be completely familiar with the transcripts before they were entered into the analysis program NVivo. Whilst doing this any new themes that arose were added to the original list and the scripts were then preliminarily coded again with the new theme. At this stage the list of themes was not definitive, themes were able to be altered, expanded and combined throughout the analysis process.

The transcripts were then copied into NVivo version 8. NVivo is a qualitative analysis package which can be used as a tool to assist with the organisation and analysis of qualitative data. The 32 preliminary themes, or nodes, were entered into the NVivo file and the researcher began to formally code the transcripts. This was done by highlighting sections, passages or excerpts within the transcripts and attaching them to the pre-entered themes.

This process of coding continued for approximately one month, when all data had been fully coded the total number of themes and sub-themes amounted to 43. Once coding had finished, detailed analysis could begin, similar codes were linked together and some of the themes were combined to create sub-themes. A definitive list of 18 themes, and a variety of sub-themes was produced.

The next stage of the analysis process was to create actual frameworks (charting). A framework was a table that included the overall title of the theme, and the names of the participants who talked about that theme, the columns were titled with the theme, or sub-theme. In the corresponding boxes every quote that each participant said about that particular theme or sub-theme was entered. For each column it was counted how many participants from Mackersbury or Stoneyshore talked about the theme to roughly see whether one service focused more upon a particular theme than the other service. Alongside the framework a further document was produced providing a definition for each theme and included an illustrative example quote.

The themes were refined until there was a final list of ten, conclusions were drawn and a narrative connecting the themes was established, this was the stage where mapping and interpretation occurred.

## **6.6 Results**

Ten key themes were identified, which have each been split into sub themes for ease of discussion. Each theme is discussed in turn, drawing on literature and

similar research to illustrate. Quotes from the interviews have been included where appropriate to provide examples and add detail to the analysis. The main themes are as follows:

- Smoking cessation as a career
- Client centred services
- Smoking cessation, you and the National Health Service
- Smoker and service relationships
- Staff perspective of smoke-free legislation
- Smoke-free legislation and your job
- Smoke-free legislation and the smoker
- Smoke-free legislation and the wider environment
- Your vision of a better service
- Future challenges for smoking cessation

#### 6.6.1 Theme 1: Smoking cessation as a career

The National Institute for Health and Clinical Excellence (NICE) 2008 guidance for smoking cessation services recommended that training and continual professional development should be available for all those involved in providing stop smoking advice and support.



Research has suggested that poor performance in smoking cessation can be due primarily to inadequate systems, such as an unsupportive environment, or lack of training and promotion opportunities within the SSS (Hodgson and Thomson, 2008). Work by Hodgson and Thomson (2008) suggested that in order to create an environment where working in smoking cessation was seen in a positive light by NHS employees a number of factors should be considered. These included the whole team being involved in relevant decision making, with achievable aims clearly laid out and the protocols in place being simple, yet detailed, so that the system was transparent to the team.

Staff in the current research discussed how they felt about working in smoking cessation. They discussed their passion for working within smoking and tobacco control, as well as their feelings towards working in other unrelated jobs. They talked about the opportunities that were available to them in relation to promotion and training within the NHS and their intentions to remain within or leave the SSS.

#### 6.6.1.1 Passion for smoking cessation

Staff illustrated, both directly and indirectly, a passion for smoking cessation and the work that they did within the service. Staff from both Mackersbury and Stoneysore demonstrated this. They discussed a variety of reasons for their positive feelings towards the field of smoking cessation. A few of those interviewed stated that they were driven by helping people and that they believed that the work that they had done throughout their career had saved many lives.

*I am passionate about it, there's no doubt about it, it's something that I really do believe in, I cant think of anything else that has the impact upon the quality of somebody's life as helping them to quit smoking does* (Nathen)

Nathen then went on to say that he believed that the English SSSs truly did a fantastic job to save smokers lives. Some of the staff discussed personal experience of quitting smoking, and how this increased their desire to help others to stop.

*I used to be a very heavy smoker, so I feel quite passionate about it, especially having given up myself when I didn't think I ever would* (Lilly)

Other members of staff talked about how they had had much experience in the field of smoking cessation and this knowledge and experience maintained their passion for their job. Nathen concluded that his strong feelings for smoking cessation were converted into providing the best possible care for his clients.

*The enthusiasm and passion that I have for my job is directed towards providing a quality service, the best possible service that I can provide for the client* (Nathen)

#### 6.6.1.2 Passion for alternative job

A small number of the staff from both of the SSSs talked about a different area of work to what they currently did. They directly stated or implied that this area was where their passion lay and where they would wish to work in the future. Areas of work mentioned were all health related such as nutrition and physical activity, sports promotion, health promotion, hypnotherapy and midwifery. This was not to say that staff were not passionate about their current role and the area of smoking cessation, just that there was another, often more dominant, area where their interests were held. This was summarised by Amy.

*I would like to go back to doing nutrition and physical activity, that's my big thing ... I mean I'm sort of passionate about people not smoking but for me it doesn't hold my interest and imagination* (Amy)

#### 6.6.1.3 Promotion opportunities within the National Health Service

When the staff from both of the services talked about promotion opportunities available to them in the NHS, it became clear that many of them felt that there were very few opportunities, especially within the SSSs.

*NHS doesn't do promotion unfortunately, that would be lovely ... it's never that kind of 'we've got someone who'll be suitable, and we'd like to put them in post', you have to apply with the rest of all the other applicants, and take your chances, which I personally thinks a shame really* (Amy)

It was suggested that the only way to have a realistic opportunity for promotion was to either move into management or to look for a new post outside of the SSS or the PCT.

*Within the service there's not a huge really opportunity for promotion ... unless your gonna take that extra step and go up to management, no not really* (Matilda)

#### 6.6.1.4 Training opportunities within the National Health Service

Amongst interviewees there seemed to be two opposing views about whether the training opportunities recommended by NICE (2008) were available within the NHS. Some were very positive, where as others claimed to have had very little opportunity.

Some of the staff talked about the wide range of training opportunities that they had had, and seemed happy with this situation. This was discussed by staff from both services.

*Yeah, well we've all done lots of training ... we've done lots of different things on motivational interviewing, I've done a whole counselling diploma, I've done weight management as well, so things that are related but not directly to smoking* (Kristen)

It seemed that staff, especially those from Stoneyshore, were very much encouraged to investigate training opportunities, and then were supported both with study leave and funding, where available, to participate in the training. It also seemed apparent that staff who felt they had many training opportunities had experienced training in a wide range of areas other than just smoking cessation related topics, including mindfulness, stress reduction, motivational interviewing, counselling, weight management and public health.

However some of the staff, from both services, highlighted that they were unhappy with the lack of training opportunities available to them.

*I haven't been on any training at all, ... we haven't been allowed to do a lot of things that I think we could have done, like cognitive behavioural therapy, I think we could have been trained to do that, a lot of things that we could, that could have assisted us, that we haven't been able to do, I think it would have helped* (Beth)

The staff who said that there were limited training opportunities, showed great interest in participating in more training, if it was available. One member of staff, Hannah in Stoneyshore, commented that once you had been in a role such as smoking cessation for a long period of time, the training available became repetitive, and once you had done it, there was nothing more to learn. She suggested she had 'been there, done it, heard it' and that the opportunities were limited.

#### 6.6.1.5 Your future in smoking cessation

Staff talked about their future careers and whether they saw themselves staying in the field of smoking cessation or whether they believed that they would be moving away from their current area of work.

When asked if they would be staying in the field of smoking cessation, very few of the interviewees committed with a yes and those that did provided little other detail in relation to this. Only one of the four who said they would be staying in the area of smoking cessation expanded upon their reasoning.

*I'm not bored or tired, or anything like that, I'm still raring to go so you know, I don't know how long ill do it, you know, maybe at the ten year mark I might sort of decide its time to do something else* (Gaby)

Although staff often stated that they enjoyed what they were doing, and many were passionate about it, when asked about there future career, most said that it would be away from smoking cessation. This was discussed by four of the team from Mackersbury and four from Stoneyshore. A range of reasons were given for why they wished to move away from smoking cessation. Some of the staff talked about returning to their original passion, as mentioned previously. Others discussed how working with clients all day, who were facing similar struggles, could get a bit repetitive, thus removing the challenge and reducing their enthusiasm.

*I don't think there would be many people who would start their career out early on, or get into smoking cessation early on and then see that out for the rest of their career, ... I think the turn over would kind of reflect that, I certainly believe if you're a specialist and your job, your main role, is to sit down and help people stop smoking, then that has a shelf life, without question* (Nathen)

Others talked about the strain of their current job, and how they wanted to change careers in order to remove themselves from particular pressures or issues.

*Sometimes you need a different scene and I think, I think certainly for me, having done this now for eight years ... I am finding it, I'm dealing with the same personalities, I'm having to deal with the same crap every day and that gets very warring and it would be quite nice to go and deal with somebody else's crap, somewhere else* (Isabella)

#### 6.6.2 Theme 2: Client centred service

Interviewees discussed how the service focused around the client, trying to provide the best possible client care. For example NICE guidelines recommended that advice, counselling and support should be tailored specifically towards clients from BME and disadvantaged groups (NICE, 2008). This theme was discussed considerably more by the team from Stoneyshore than the team from Mackersbury.

##### 6.6.2.1 Client's best interest

Some interviewees discussed how the work that they did always had the client's best interest in mind and that they went out of their way to provide the best quality of care possible. Staff discussed two main ways that this was illustrated through their work. A number of staff from both services stated that they did not tell clients that they must stop, or tell them off if they had a lapse. Instead they said that they tried to empathise with the client and help them in a way that best suited them.

*I have one chap at the moment, who is having a couple of puffs a day, and that's literally what he has before id have said 'look I don't know if I can help you, because you need to stop' but I know how hard it is for him so I'm accepting that if you see what I mean because I know that if that's the best I'm gonna get, its fantastic* (Beth)

Staff from Stoneyshore discussed how the staff at their service were very motivated, that they went out into the community to make it easier for clients to access support. They discussed taking the service to the clients as opposed to them having to come into the clinic and approach the service.

*A brilliant service here I would say, very motivated ... will bend over backwards to see people at times that are convenient ... we don't even make people come to clinics, you know we'll go and see them in their own homes (Jessica)*

#### 6.6.2.2 Client doesn't come first

In contrast to talking about how the client came first, a number of the team, particularly those from Stoneyshore expressed disappointment or anger at how the client did not always come first to others, such as some of their senior management.

*You can't change anything without having to jump through ten, 12 hoops in order to do it ... they don't take into account the needs of the client, what they see is a litigation I guess (Nathen)*

Others expressed a similar opinion through discussion of targets set by the government and PCT, suggesting that they were forced to focus upon targets, which could take the focus away from care for the client and turn their role into simply ticking a box to satisfy enforced expectations.

*I think it's a shame because we are so target driven, I think it can have quite a negative impact on the actual quality of service that can be given (Matilda)*

#### 6.6.2.3 'Drip drip' process of cessation

Four of the staff discussed being understanding of the client and the nature of smoking cessation. One interviewee called it 'drip drip of cessation', where if you

keep encouraging and motivating smokers then one by one they will decide to quit smoking. This illustrated that the SSSs tried to understand and empathise with the smokers that they worked with, allowing them to provide a better client centred service.

*The thing with smoking cessation is its drip drip. And you have to just keep on and keep on ... you've just got to have that motivation to keep them going, and on some people it will, the seed will fall on the right people and it will grow* (Jessica)

#### 6.6.3 Theme 3: Smoking cessation, you and the National Health Service

In 1998 'Smoking Kills: a white paper on tobacco' was published. It set out a number of targets relating to smoking prevalence. Three of the headline targets were to; reduce smoking among school children from 13 % to nine percent by 2010, to cut adult smoking in all social classes from 28 % - 24 % by 2010 and to reduce the percentage of pregnant smokers from 23 % - 15 % by 2010 (Department of Health, 1998). NICE guidance subsequently recommended that targets should be realistic for the number of people accessing the SSSs, and for the proportion who successfully quit (NICE, 2008). In 2010 'A Smoke-free Future: A Comprehensive Tobacco Control Strategy for England' was published, this outlined further targets for the following ten years. The headline targets included; to reduce the smoking rates among 11-15 year olds and 16-17 year olds to one percent or less and eight percent, respectively, by 2020 and to reduce the adult smoking rate to ten percent or less by 2020 (Department of Health, 2010).

It was part of routine practice for staff working within NHS SSSs to collect and submit monitoring data, from their clients, to the government. This data was submitted quarterly; the minimum data set included gender, year of birth, ethnic group, pregnancy status, quit date, treatment provided, success of the quit and whether the clients smoking status was carbon monoxide (CO) validated (Department of Health, 2007b).



As previously mentioned, Hodgson and Thomson (2008), suggested that in order for members of a SSS team to feel valued and appreciated, they needed to feel included in decision making and feel part of the system. Research by Moody (2006) suggested that many SSS staff had concerns relating to their job security, the quality of their colleagues that were employed, high levels of work related stress, targets and the merging of PCTs, amongst other issues.

Staff in the current research discussed their relationship with and attitude towards the NHS. This included how valued and appreciated they felt by the NHS, problems they had faced within the organisation, their opinions of the government targets that the SSSs were expected to achieve and what they felt could be done to improve their role.

#### 6.6.3.1 Feeling unappreciated and lacking respect

Some staff did not feel that they were respected by some colleagues within the NHS and sometimes they were not given the responsibility or authority that they felt they deserved.

*It's a sort of feeling of not being heard and you know well actually, 'oh, just pipe down' you know nobody actually wants to hear the whole story because they know that it's going to be around money and they know it's going to be around taking risks ... well we're the specialist service, aren't we, it should be us making that decision*  
(Isabella)

A number of the staff mentioned a conference where the Public Health Minister had attended and given a presentation. There appeared to be a general feeling of unease in relation to this event. Some of the staff felt that the minister did not stay to take questions and believed that the minister was not really interested in what the SSSs and other HCPs had to say. This may have suggested to the staff that those in

government were not appreciating or respecting the people who carried out the day to day work. As Jessica summed up below, the staff wanted to feel as though they were being listened to.

*Having been to the (-) conference recently, you know the MP came along, ... didn't listen to any of the lectures or what had been going on, came in gave a spiel, it wasn't exactly stimulating talk and then left and there were no questions ... it didn't go down very well ... you know just to feel more supported from the government would be really good* (Jessica)

#### 6.6.3.2 Bureaucracy and red tape

Interviewees discussed what they referred to as the 'bureaucracy' and 'red tape' within the service and the NHS that prohibited or interfered with staff duties. This issue was raised by staff from both of the services, however it was discussed by more of the team from Stoneyshore than Mackersbury.

*I've got quite a lot of autonomy within the PCT, but I think sometimes, the Department of Health can actually restrict you in that they want things done in a certain way and it may not always be that appropriate to do it in your particular area, ... I think sometimes you can have two many layers that you need to go through* (Felicity)

Whilst conducting the interviews it was felt through a change in body language, tone of voice and choice of words that this was an issue that had great impact upon the staff and caused them a fair amount of distress.

*I am honestly just gob smacked sometimes with the amount of red tape and bureaucratic rubbish that we have to deal with in order to get something that's so painfully obvious and simple done ... in our little world of the NHS its like, whoo,*

*there's a problem here, we need to sort this out, ohhh wooooo, have you put it through the proper committee, have you done your risk assessment...* (Nathen)

#### 6.6.3.3 Personal attitude towards the National Health Service

Many of the staff briefly talked about how they personally felt about the NHS, these discussions were both positive and negative. It should be noted however that only two members of staff talked about positive attitudes that they had towards the NHS, eleven members of staff discussed negative attitudes.

Positive feelings or opinions towards the NHS were expressed by two members of staff. One member of staff talked about the perks for staff, such as a good sickness policy, relatively generous holiday entitlement and good salaries. The interviewee also discussed how some of the management were very supportive and understanding. However this discussion arose when the member of staff was comparing her situation to colleagues from other PCTs. She suggested that they had had more distressing experiences within the NHS, therefore making her appreciate her situation more, stating

*I don't think I've had to deal with quite as much rubbish as some* (Isabella)

Another member of staff talked about how the services were fantastic and doing a great job, however he then went on to say that if all other services were as good as theirs, then the situation would be better, therefore indirectly criticising other services and areas within the NHS.

*I really do believe the services we have in this country are doing a really fantastic thing ... we do a really really really good thing, a really good thing, ... we are very lucky here in Stoneyshore, we do have a fantastic service and if everyone had a service like us then that would be good* (Nathen)

On a number of occasions the staff were critical about the NHS, a lot of different areas relating to the NHS were discussed and often criticized. For example, pressure from the Department of Health, lack of promotion opportunities, lack of guidance, lack of trust from management and lack of funding. It was interesting however that none of the critical discussion was around the actual care and service provided to clients. It was focused instead around the organisational structure of the NHS and how it functioned as a business. As opposed to for example, the medication available, or quality of their local hospitals, as Jessica and Isabella illustrated.

Jessica talked about her frustration when a client was forced to return to smoking because the communication between different services was slow, causing the clients prescription to take too long to be processed.

*It does get you down a bit, you get people ringing up saying, oh I had a cigarette because I couldn't get my prescription on time, you do get a bit fed up, ... it will take two days to generate it, and I sort of think, I don't see why that has to be* (Jessica)

Isabella talked about her frustration with the PCT human resources. This discussion occurred when she was talking about the amount of time it took between employing new staff and getting them to the stage where they were ready to begin work.

*I think the challenges are the same challenges that everybody who works in any organisation in the NHS faces, is that cogs work very very slowly, the HR processes are pants, you know they really are* (Isabella)

#### 6.6.3.4 Targets

The issue of targets was repeatedly discussed in interviews, in both a positive and negative light. However more often than not targets were criticised, particularly highlighting how unrealistic they were felt to be.

Three of the staff discussed targets in a positive light. One of the team said that she was very driven by targets. Another stated that they were good because it meant the service collected monitoring information and were therefore aware of which groups they were reaching in the local area and who they need to focus their efforts upon. As Hannah stated below, targets could also be a good thing because they forced the staff to keep going to reach more smokers.

*You could argue actually targets are good because it makes you keep chipping away to get your punters in so I don't necessarily see targets as a totally bad thing*  
(Hannah)

There were however seven situations where targets were discussed in a negative light. Targets were criticized for a number of reasons, they were said to be unrealistically high which could lead services to undertake 'creative accounting', they were said to put added unnecessary pressure upon the staff and could have the ability to reduce clients down to numbers.

*We all understand why we have targets, but for me at times it doesn't see people as people who need to stop smoking, they're just numbers ... I think that's very unfair on the clients and it's not a good duty of care* (Amy)

A successful quitter, in terms of the Department of Health monitoring guidance (2001), is someone who is a 'treated smoker' who four weeks after the designated quit date declares that they have not smoked even a single puff in the past two weeks. This was seen by many of the staff as a problem. Those who had smoked themselves in the past said that after only four weeks they did not see themselves as a non-smoker. Many talked about high relapse rates after four weeks, thus concluding that the four week figures were not representative of actual quitters.

*The figures that they ask for are pretty silly really ... they ask for the stop rate at four weeks, well I mean I've been a smoker and you can stop for four weeks it certainly doesn't mean you've given up smoking* (Lilly)

Another problem that the staff had with targets was the conflict between achieving targets and reaching hard to reach groups, such as pregnant women and disadvantaged smokers. They said that these smokers found it harder to stop and often made more unsuccessful attempts than smokers from more affluent groups. It was suggested that services either focused upon non-hard to reach groups and achieved their target, or focused on hard to reach groups, who needed more time and support, but then as a result were often unable to reach their target.

The issue of where the target came from was also discussed by some of the staff. They talked about this very important number that they were all pushing to reach, facing demands from their management and repercussions if they did not reach it. However they did not understand the logic of where the figure came from, who made it up, and the reasoning behind why it was different for different SSSs. The four week quit targets originate from an overall target set by the Department of Health. This target is split up between strategic health authorities (SHAs), which is then shared between all of the PCTs within the SHA. The target that each PCT and thus each SSS is required to reach is based upon a number of factors including the areas population and smoking prevalence, as well as the previous year's targets. The quote below was one example of the staff's general frustration towards targets.

*Don't just pull a number out of your arse, stick it on the wall and tell me that I need to hit it ... to be honest what we have got at the moment is the absolute watered down, most concentrated, simple tiny, little narrow minded version you can get, its on four week quitters and its yes or no, what does that tell you, it doesn't take into account anything* (Nathen)

#### 6.6.3.5 Improvements for staff

Staff were asked a very open question of what could be done by the NHS or government to improve their role; their wide range of responses included removing targets, providing the SSSs with more time, money and resources and making smoking illegal.

A number of staff felt that if targets were removed it would make their role easier. This related back to their negative attitudes towards targets mentioned previously. This idea was summed up by Kristen below.

*Take away the targets, I can't think of anything else to add to that really. Err I think that would be a huge thing to do actually just to free us up to enable us to do the work we want to do ... but erm yeah just freeing up from those ridiculous restrictions that don't help anybody except give a whole layer of strategic health people a job to do, so that would be very helpful* (Kristen)

NICE guidance recommended that SSSs should be staffed and funded adequately to be able to provide a good service (NICE, 2008). Many staff commented that with more time, money, resources, guidance etc, their job satisfaction would be improved.

*Quite often, ideas will come up of things we want to do and its lack of funding for advertising or supporting something is normally what compromises any sort of innovative ideas that come about really* (Matilda)

It was also suggested by one member of the team that if smoking was illegal, this would help improve the role for staff, as less people would start smoking, so less people would need support to stop. Although there was only one person that suggested this, it was included because it provided an example of how passionate the staff were, and how they felt about the dangers of smoking and the effect it had.

*Ban smoking ... Complete ban. I would say it's a modern day outrage that smoking is allowed, and how the hell tobacco companies are allowed to do what they do in this society ... having seen how it devastates people's lives, it ruins people's lives, I just think it should be banned tomorrow. That's it. No more smoking allowed legally*  
(Hannah)

#### 6.6.4 Theme 4: Smoker and service relationships

Smoking prevalence in England was highest in the 20-24 year old age group, with rates being progressively lower in the older age groups (ONS, 2009a). There were links between smoking prevalence and socio-economic status (SES), with higher numbers smoking within the routine and manual groups than the managerial and professional. This divide becomes increasingly visible as higher numbers of smokers quit in the later group (Action on Smoking and Health (ASH), 2007c). For this reason SSSs have predominately been focused upon providing a service to economically disadvantaged smokers, as well as pregnant women and young people (Bauld et al., 2007a). A national evaluation of SSSs found evidence that 'positive discrimination' existed, and services were effectively reaching a higher proportion of smokers living in disadvantaged areas compared with more affluent areas (Chesterman et al., 2005). Despite more smokers from disadvantaged areas being treated however, there were less successful quitters within these groups (Bauld et al., 2007a). Much research has supported Bauld and colleagues (2007a) work suggesting that smokers living in disadvantaged areas have a higher probability of being addicted to smoking and have lower successful cessation rates associated with NHS SSSs (Judge et al., 2005; Bauld et al., 2006).

Research suggested that some of the most common reasons that individuals provided for why they decided to stop smoking included worries about current and future health, the cost of smoking and advice from a professional (Vangeli and West, 2008). As The NHS Cancer Plan (2000) stated, people have the right to smoke and



make their own choices about how to live their lives. However due to the addictive and dangerous nature of smoking, it is the governments role, and therefore the SSSs role, to ensure that all smokers have a real choice about whether to quit smoking (Department of Health, 2000).

Staff in the current research discussed the type of clients that they had seen and whether they felt there was such thing as a typical client. They talked about what they believed were the client's main reasons for stopping smoking and how the client felt about the service. Staff also discussed what they felt their personal impact was upon the client and how it was a smoker's choice whether they decided to quit smoking or not.

#### 6.6.4.1 Typical client

Some of the staff were able to describe what they thought was a typical client, characteristics included being aged about 40 or above, from deprived groups in society, manual or blue collar workers and often had a number of unsuccessful quit attempts in the past.

*Our typical client tends to come from more deprived areas of Stoneyshore, they tend to be around the mid thirties to late forties, id say around that kind of age range, we see slightly more females than males, they are polite, usually very appreciative of our help, and usually very motivated to quit smoking* (Nathen)

Data collected from clients in Stoneyshore, reported in Chapter 8, illustrated that the sample of clients interviewed had demographic characteristics similar to those described by Nathen and others. For example 59 % (10/17) were aged 40 or above, 29 % (5/17) were unemployed or unable to work and 59 % (10/17) were female.

Other members of staff said that it was impossible to describe a typical client, that this did not exist as their clients were of all ages, from all walks of life, with a range of personalities, expectations and reasons for wanting to quit smoking.

*Don't think there's any such thing as a typical client unfortunately cos, erm taha, I'm gonna sound sarcastic now, but a typical client is a smoker, as in a typical smoker, comes in looking for assistance, looking for support, they obviously want to quit*  
(Colin)

#### 6.6.4.2 Smoker's primary reason for quitting

The staff suggested, from past experience, what they believed to be the most common reasons for smokers to want to stop smoking. There were five main explanations given; these were due to a health shock, public stigmatization, how smoking affected their appearance, the cost of smoking and that they had simply 'reached a point in their life'.

Many of the interviewees suggested that the primary reason for why their clients tried to stop smoking was due to their health, usually they would notice their health getting worse, or a relative or friend would have a smoking related health problem, and this would often push them towards quitting.

*It often takes a kick shock for someone to give up, a heart attack or a close relative having a heart attack who was a smoker, that is a big motivational factor* (Jessica)

Some of the team suggested that due to change in public attitude towards smoking, some of their clients felt stigmatised for smoking and therefore no-longer wished to be classified as a smoker, leading them to a quit attempt.

*They talk about feeling stigmatised feeling like lepers, you know, feeling stupid, embarrassed about smoking ... feeling outside the norm* (Kristen)

A number of the interviewees discussed smokers who used the negative impact that smoking had upon their appearance as the explanation for why they were quitting

*Not liking the smell, it doesn't really fit in with the image of themselves, you know, having to wash their hair more frequently, that sort of stuff ... I think women would be much more aware as you'd expect really about how they look, smell of tobacco in their hair, smoke in the hair and on their clothes and that sort of thing, and wanting to look nice and be fresh* (Kristen)

Some felt that money was a reason to want to quit smoking, saying that some of their clients talked about not being able to afford to smoke anymore, especially if they were from deprived areas and had a family to look after. However others felt that money was not as much of an issue as it used to be, often due to smoking counterfeit cigarettes or buying cheaper cigarettes abroad.

*When I first started doing just the families, the money was a big issue, where as now days ... it's not coming up the highest priority now, it used to always be, I've got to give up because of the money, but for a lot of them now, its well I get it cheap anyway* (Jessica)

Some of the staff discussed how clients claimed to 'reach a point in life' and they just decided or realised that they just did not want to smoke anymore.

*They usually report that they have come to a point in their life, whatever that is, whether they just don't wanna do it anymore and for whatever reason that is* (Amy)

#### 6.6.4.3 Client's expectation of the service

Interviewees also discussed what they thought the clients expected from the service when they came for their initial appointment. Staff said that these expectations

varied, and this may be dependent upon a number of factors. If a client was referred by their GP, they may have had different expectations than if they had self-referred. Sometimes clients believed that they would walk in as a smoker and leave as a non-smoker, as if the advisor had magic powers. Others drew the distinction between clients who wanted and expected support, motivation and counselling alongside medication, and others who simply expected to pick up a prescription and nothing more.

*Sometimes they think they're going to be told that right from when you walk out of that door your not gonna smoke again sort of thing, so they quite often look quite relieved that that's not the case, yeah I think sometimes they have an expectation that we are just going to kind of magically make them a non-smoker which of course is not realistic* (Matilda)

#### 6.6.4.4 Advisors impact on quitters

Four of the staff discussed how they saw their role in the quitting process, and discussed the impact that they felt they had upon the client. This included providing support without creating dependency, guiding the smoker through the quit attempt, motivating them and providing them with the encouragement to carry on. This was supported by NICE guidance that recommended that a stop smoking advisors role was to offer advice, encouragement and support to help people with their attempt to quit (NICE, 2008).

*So very much it feels like motivating people and letting them know that its hard to give up and that just because they didn't do it first time doesn't mean they are a failure* (Amy)

#### 6.6.4.5 A smoker's right to choose

Many of the SSS team discussed their attitudes towards people that smoked, often stating that smoking was the individual's choice and that it was a personal preference if they chose to stop smoking or carry on.

*It's their choice to smoke and we should respect their choice, the minute we don't respect their choice is the minute when you don't become a good advisor do you? ... you have to respect their choice and if they want to stop then you can help them, but if they don't you can't make them stop* (Beth)

#### 6.6.5 Theme 5: Staff perspective of smoke-free legislation

As previously discussed, on July 1<sup>st</sup> 2007, England went smoke-free. The Health Act (2006) meant that smoking was prohibited by law in all enclosed public places and workplaces in England (The Health Act, 2006). Unsurprisingly, almost all of the staff talked about their opinion, thoughts and attitudes towards the smoke-free legislation, both their initial thoughts, opinions a year into the legislation and any apprehension they had in relation to the smoke-free legislation.

##### 6.6.5.1 Positive attitude towards smoke-free legislation

Staff attitudes towards the smoke-free legislation were almost all positive, it was felt that the legislation would have major benefits for public health, and had taken too long to be implemented.

*It's really, well it's the way forward, ... you know it's long overdue to be honest. ... I think it really does show the way forward, it gives people an incentive and it denormalises smoking which is what you want* (Gaby)

#### 6.6.5.2 Negative attitude towards smoke-free legislation

The response to the smoke-free legislation was very positive and all the stop smoking team seemed in favour of it. However most staff also discussed one or two problems that they had come across in relation to smoke-free. The two most common problems were that smoking had become more public and that smokers had been made to feel stigmatised and alienated.

Almost half of the staff discussed feeling that smokers had been pushed out onto the street, which had made it more visible. This was described as both unattractive to look at and unpleasant to walk through. The majority of the team who raised this issue were from the Mackersbury SSS.

*The only thing that is a pain is when you walk past premises and it's even more toxic almost* (Amy)

Staff also discussed clients who now felt even more alienated from society and stigmatised or outcast for being a smoker, resulting in them feeling 'got at' or discriminated against.

#### 6.6.6 Theme 6: Smoke-free legislation and your job

Two national surveys of NHS SSS co-ordinators were conducted, one before the smoke-free legislation was implemented, Survey 1 (see Chapter 4) and one ten months after, Survey 2 (see Chapter 5). These surveys explored the how the services were preparing for the legislation, as well as how their services changed following its implementation, for example changes to funding, client numbers and types of interventions provided (see Chapters 4 and 5).

On average the co-ordinators suggested that they had seen a 37 % increase in the number of smokers setting a quit date in the three months following the legislations

implementation, when compared with the figures from same period the previous year. The co-ordinators felt their services coped predominately well with an increase in client numbers since the smoke-free policy was introduced. Over 70 % claimed to have coped very well, 20 % said that they coped adequately, seven percent said that they just about coped and none of the co-ordinators said that they were unable to cope (see Chapters 4 and 5).

Only 24 % of services received an increase in funding from April 2007 compared with the year before. The average increase in funding was 21 %, for 88 % of these services the funding was still available from April 2008 (see Chapters 4 and 5).

The staff interviewed discussed how the smoke-free legislation had impacted upon their position, for example structural changes to the service, the impact of the legislation upon their actual role, changes in the amount of pressure upon them and change in the amount of clients that accessed the SSS.

#### 6.6.6.1 Changes to service structure

Three members of staff discussed how the smoke-free legislation had impacted upon the structure of their service. Changes mentioned included an increase in the size of the service, an increase in outreach work such as taking the cessation service out into the community, increased advertising and the setting up of drop in clinics.

*The actual opportunity that the ban gave us was great because you know we thought there would be more people, we wanted to capture those people so we put a lot of effort into advertising, to running this drop in on a Saturday morning, to making sure we had additional staff, to making sure that we could open up more clinics and make it available to people, we had radio advertising, paper adverts ...we've increased our capacity, we have more people working in the service (Isabella)*

#### 6.6.6.2 Changes in your role

Eight members of staff talked about minor alterations to their role since the smoke-free legislation was introduced, however they generally felt that the legislation had not resulted in too much of a change within their role.

*I don't think my roles had to change I still use the same skills and tools when I'm working with people* (Matilda)

Two of the staff, both from Mackersbury, mentioned a slight change to their role. One member of staff talked about how her role had expanded, that she now focused on wider tobacco control issues and not just smoking cessation, in part she attributed this to the introduction of the legislation. The other change to staff roles was that the advisors were working with more clients who had dramatically cut down but had not completely stopped smoking. It was suggested that this may have been due to heavy smokers, who would not have thought about quitting before the legislation was introduced, accessing support as the new smoking restrictions had become too hard to cope with.

#### 6.6.6.3 Changes in pressure

The interviewees generally felt that the legislation had not led to changes in pressure that they felt were placed upon them at work. Many of them talked about the pressures of work, but said that they had always been there, and had not been increased by the introduction of the legislation.

*There's always pressure to do that, but I don't think that's as a consequence of the legislation, I think that's just the nature of the Department of Health, the targets that they set and the targets that we are given* (Matilda)



One member of staff said that she thought the pressure had increased just after the legislation was introduced, however this pressure had since subsided.

*I think there was pressure at first, ... cos everyone just expected this automatic surge in the number of quitters, ... but I don't think there's any pressure now* (Dorothy)

#### 6.6.6.4 Changes in the number of clients accessing the service

There were varied views about any increase in the number of clients that had accessed the service. Some felt that they had seen more people and some felt that they had seen less. What became apparent, through the discussion, was that most of the staff had expected there to be a larger increase in clients than they had seen. They often stated that they were surprised that the increase in clients was not as high as had been predicted by the experts, and not as high as had been seen in other countries, such as Scotland and Ireland.

*Everyone just expected this automatic surge in the number of quitters, and it didn't happen immediately after the legislation, so everyone was saying 'oh, are you seeing a lot more quitters, are you seeing a lot more people?'* (Dorothy)

Another point discussed by a number of the staff was that due to other events occurring around the time of the introduction of the legislation, such as change in service structure and the introduction of the new medication varenicline. It was quite difficult to speculate whether any changes experienced were a result of the legislation or these other factors, or a combination.

#### 6.6.7 Theme 7: Smoke-free legislation and the smoker

Research has suggested that, in England, a greater percentage of smokers reported making a quit attempt in July and August 2007 compared with July and August 2008. In the five months following the introduction of the legislation 19 % of smokers that

made a quit attempt reported that they had done so in response to the introduction of the smoke-free legislation. There were no significant differences in these quit attempts with regards to gender, social grade or cigarette consumption; there was however a significant linear trend with increasing age (Hackshaw et al., 2010) (see Chapter 9) (see Appendix 9.1).

The impact of and relationship between the smoker trying to quit smoking and the smoke-free legislation was also discussed in the interviews. Staff described the client's motivation to stay stopped and how the legislation assisted this process, how the type of client that accessed the service had changed and whether the legislation itself had motivated clients to stop smoking.

#### 6.6.7.1 Smoke-free legislation as a motivation to quit smoking

Many of the staff talked about whether smokers had decided to stop smoking because of the legislation. It kept being repeated that although the legislation helped people to remain abstinent once they had made a quit attempt, it was not the primary motivational factor for them quitting in the first place.

*Cos of the ban? No, I wouldn't say it's a motivation, but it's assists their motivation, whether its money or health their giving up, the ban helps towards that (Colin)*

This finding however was different to data reported in Chapter 9, which found that the smoke-free legislation resulted in an increase in the number of smokers that made a quit attempt around the time that the smoke-free legislation was implemented. It may have been the case however that those who made a quit attempt, did not do so using the SSSs, thus this finding was not detected in the interviews. Alternatively, as the sample size for the interviews was relatively small, this may explain the difference in findings.

One member of staff suggested that the legislation had been a motivational factor for clients to begin or return to smoking. Suggesting that going outside to smoke was a way to meet people, she described it as 'smirting', smoking and flirting. She suggested that people chose to go outside and smoke rather than being left alone in the pub.

*Some people have started smoking because of it ... because they don't wanna be left on their own or they've gone back to smoking cos they don't wanna be left on their own in the pub or in the club* (Beth)

#### 6.6.7.2 Motivation to stay stopped

Staff described how smoke-free legislation had made it easier for people to quit smoking, particularly by reducing the temptation to relapse and thus maintain a non-smoking status. The most common scenario discussed was that often clients would lapse or relapse when in a social setting, such as a pub. Without the cue of others smoking inside a pub, staff said that many of their clients found it easier to go out and socialise without returning to their previous smoking habit.

*People who would of kinda cracked when they went to the pub with a drink, now say it makes it much easier cos you know, there not having all those cues to smoke all the time ... definitely helps prevent relapse in the earlier stages* (Kristen)

#### 6.6.7.3 Change in type of client

Some of the staff said that the type of client attending the service had changed. The harder to reach smokers had come forward, people who may have not attended before the legislation was implemented were seeking support from the service. Smokers who were attending the SSSs were said to be from more deprived areas and have other social, economic and psychological conditions to contend with, as well as stopping smoking. Staff said that they were also seeing more smokers with

physical or mental health problems, and more smokers who were more likely to cut down than completely quit. The 2008 NICE guidance for smoking cessation services recommend that some clients, such as those discussed by the staff, may benefit from being provided with appropriate NRT and support so they could follow the nicotine assisted reduction to stop (NARS) strategy, as opposed to quitting abruptly (NICE, 2008).

*I don't know I think all of those people had kind of talked about it and this has kinda given them that confidence ... I think there's more hard to reach groups coming forward and just getting that confidence to come and see someone* (Dorothy)

#### 6.6.8 Theme 8: Smoke-free legislation and the wider environment

Haw (2008) suggested that there was a high level of support for the Scottish legislation in non-smokers and an increasing level of support following the legislations implementation from smokers. It was suggested that following the legislation, social norms in Scotland about smoking behaviour began to change. It was probable that the Scottish experience would be replicated in England.

NICE guidance recommended that the SSSs had communication with and developed partnerships with other organisations, such as local government and non-governmental organisations in order to reach and appeal to more smokers (NICE, 2008). In The NHS Cancer Plan (2000) the Department of Health pledged one million pounds into funding new local alliances for action on smoking. This aimed to form networks that would bridge the gaps between treatment services, local authorities, community groups, businesses and schools etc (Department of Health, 2000).

Research around the Scottish smoke-free legislation suggested that compliance was high (97-98%) (Haw, 2008) and that the legislation had been well enforced, leading

to an improvement in air quality and a reduction of exposure to second hand smoke (SHS) (Semple et al., 2007; Haw and Gruer, 2007).

Interviewees in the current research discussed the smoke-free legislation in relation to the wider environment. This included how well they felt the transition went in becoming a smoke-free country, how others saw the SSSs, the profile of the service, the impact of the weather, other organisations involved with the legislation and how well they felt the legislation had been enforced.

#### 6.6.8.1 Transition to smoke-free legislation

Most of the staff described the transition to smoke-free in a positive light, saying that they felt the public had accepted it and that the transition was smooth. Many of the staff talked about their apprehensions before the legislation was implemented, expecting a lot more backlash from smokers, however were surprised at how easy the transition had been.

*I must admit, I had reservations, I thought there'd be a lot more negativity towards it than there actually was I think in the main, more people saw it as a positive thing, even smokers than people who, you know, I thought there'd be riots over it and there clearly weren't* (Elisa)

It was also commented a number of times that people had already started to forget what it was like before the legislation was introduced, when bars and restaurants were still smoky, thus illustrating how quickly people adapted and accepted change.

*Now I talk to members of the public, talk to friends and family, and it wouldn't feel right to be smoking in public places, it's just already become so very comfortable* (Nathen)

#### 6.6.8.2 Public attitudes to smoke-free legislation

There was also discussion about how the SSS staff believed the public felt about the smoke-free legislation. It became apparent that the public had expressed mixed attitudes about the legislation, both positive and negative.

Interviewees said that some of the public had responded in a positive manner towards the legislation, both smokers and non-smokers were supportive of the legislation. Five members of staff from each service talked about experiencing a positive response from the public about smoke-free. Some of the staff said that they had noticed less upset in relation to the legislation, that 'people have just got on with it' and that not being able to smoke in public places had become the norm. They said that both smokers and non-smokers alike were accepting of the legislation.

*I don't see many people that feel quite cross because they've got to smoke outside; that's just the way it is* (Matilda)

A number of the advisors said that the legislation had been accepted better than they expected it to be and that they had been surprised by the lack of objection and opposition that had been shown. One advisor stated that her clients never really mentioned it, or that it was mentioned in passing but it did not seem to be a big thing to them. She concluded that they were not particularly unhappy about the situation. Another of the advisors had quite a lot of contact with the hospitality industry and she reported that they were really happy with the improvement in the atmosphere of their establishments.

*A lot of them did say that their staff, particularly behind the bar did notice a difference and felt it was a more pleasant atmosphere ... on the whole, id say the majority of them felt it was more of a positive experience than they had expected it to be* (Felicity)

Although many of the staff reported positive responses from the public, there were also some negative attitudes experienced, where people were angry or upset about the legislation. Five members of staff from each service talked about a negative response they had received from the public in relation to the smoke-free legislation.

Some of the staff mentioned that the legislation had made smokers feel even more alienated and stigmatized. The other main negative response from the public was directed towards the government, demonstrating frustration that they were living in a nanny state, where their lives were being controlled. Anger was shown towards the smoke-free legislation, saying they had rights and these rights had been removed.

*We did have one or two incidences where we had some fairly aggressive, quite cross people ... one or two fairly stroppy hardened smokers who just thought it was the worse thing ever* (Isabella)

#### 6.6.8.3 Change in the service's profile and smoke-free legislation

There were some conflicting views as to whether the service's profile had changed due to the smoke-free legislation. Some were positive that their service was more known about because of the legislation. They stated that they had used the publicity surrounding the legislation to boost the profile of their service.

*Yes, I mean I think we had a reasonably high profile ... we've been up and running for nine years and we did in the early days do an awful lot of advertising, you know a lot of events, erm I think it probably has just raised the profile a little bit more* (Isabella)

Some of the staff said that the profile had increased but not as much as they expected it to. Other members of staff thought that there had been no change in profile, and if there was, it was due to other reasons and not the legislation. One member of staff felt that the legislation had increased negative opinion of the SSS as

smokers were angry at the government and saw the SSS as the public face of the government in relation to the smoke-free legislation.

#### 6.6.8.4 Weather and smoke-free legislation

Many staff discussed how they felt the weather influenced the impact of the smoke-free legislation. Both because it was warm when the legislation was implemented so smokers did not mind going outside to smoke and also that when the weather turned colder in the winter more people approached the service as it was no longer pleasant to smoke outside.

*The feedback that was coming back from the groups was 'I will continue to smoke because I can quite happily sit outside in restaurants or a bar and smoke, I will think about quitting in the winter' (Elisa)*

A similar opinion was heard from almost all of the staff that were interviewed. Some saw it as a clever move by the government to introduce the legislation in the summer months. It meant that by the time the weather became cooler and people no longer wanted to go outside to smoke, they would have adapted to the fact that they could not smoke inside. It was suggested that was partially why such high compliance was observed.

#### 6.6.8.5 Other organisations and smoke-free legislation

There was a fair amount of discussion relating to other organisations, talking about how they were involved with implementing smoke-free, how they worked positively alongside the SSS and also how they could be a negative influence as well. All of the staff that were interviewed from Mackersbury talked about other organizations in relation to smoke-free, only one member of staff from Stoneyshore raised this issue. Interviewee's accounts of the role of other organisations were predominantly split



into two categories, organisations that were supportive of the legislation and those that were not.

Four of the staff talked about organisations that had been encouraging of the smoke-free legislation and had been interested to find out more information. They discussed pub landlords who had been keen to know where they stood and what their rights were in relation to asking people who were smoking to leave their premises. Others discussed businesses that had decided to go smoke-free before the legislation came in, and offered their staff stop smoking support.

*And these solicitors obviously want to take the extra effort, because there a big company, and one of the call centres did as well, another big company, so they contacted me cos there implementing a no-fag break policy, so in order to implement it, they are offering support (Colin)*

However this interviewee then went on to say that not all companies and organisations were as supportive of the legislation

*I don't wanna sound horrible towards companies, but sometimes you know, people just can't be bothered there's smoke-free policy in place, that's all that matters, cos you know, they'll go by the law, so they won't make the extra effort (Colin)*

This sentiment was expressed by other members of staff, saying that although some companies were very pro-active in helping their organisation become smoke-free, others were not very supportive. Some of the interviewees discussed other fractions within the NHS and public sector that were not very supportive of the smoke-free legislation. For example saying that staff working with prison inmates and people living in mental health institutes felt they were dealing with enough other problems without having to also go smoke-free.

*In Mackersbury it seems to be the staff that have more of a problem with it than the prisoners themselves, ... there were complaints and worries that it was gonna cause real problems and it hasn't caused any problems at all it was just as I say the sort of prisoner support group and the staff that were worrying not the prisoners themselves ... I think there's been an entrenched kinda view, and this is from people who work in mental health as well, that you know, these guys have got enough problems to deal with, you know, getting them to stop smoking as well ... its not high up on the agenda it really isn't (Amy)*

The staff demonstrated anger and frustration at organisations, especially those within the NHS or public sector who were not supportive of the smoke-free legislation. As Amy illustrated above, the staff believed that they should all be working towards the same long term goal of a smoke-free England.

#### 6.6.8.6 Enforcement of smoke-free legislation

Four members of staff talked about how well, or not, they felt the smoke-free legislation had been enforced and issues surrounding enforcement, such as the giving of penalty notices to those who broke the law. Three of the staff were from Mackersbury and one was from Stoneysore. There were mixed opinions about how well the smoke-free legislation had been enforced.

A number of the staff felt that the legislation had been implemented and enforced very well, that it was self governing as it was something that the public had wanted.

*I actually did think before that it would probably be largely enforced through public wanting it ... if the majority of people wanted it then that actually helps to enforce it so people would be prepared to sort of say if they saw someone smoking in an enclosed space they would actually mention it to someone (Felicity)*

Other interviewees however were not of this opinion, although they agreed that the initial implementation had gone well, they were worried that it had not been enforced properly and that this could have resulted in people flaunting the legislation to a greater extent in the future.

*I don't think that Mackersbury City Council are doing as much as they could, to enforce it, some councils are but I don't think our council is I think the idea of it taking the softly softly approach, in terms of enforcing the legislation, I think that's fine for the first three months, and all the warnings and so on, but you know a year on and you've literally not handed out one fixed penalty notice and your still you know, three warnings type system – its not sending the right message out ... I just think we run the risk of it slipping a bit (Dorothy)*

#### 6.6.9 Theme 9: Your vision of a better service

Research by Moody (2006) suggested that those working within the SSSs believed that their role should involve tobacco control in general as well as smoking cessation. He also suggested that some staff believed that more advertising and marketing was needed to improve the reach and access to the services (Moody, 2006).

The Tobacco Advertising and Promotions Act (2002) prohibited almost all tobacco advertisements, as well as controlling smoking shown in films and on television. As tobacco advertising reduced, stop smoking advertising increased, as did the concept of social marketing. NICE guidance recommended that stop smoking advertising campaigns should be developed and evaluated using audience research and stated that campaigns should be sufficiently extensive and sustained to have a reasonable chance of success (NICE, 2008).

NICE guidance also recommended that SSSs should offer NRT, varenicline and burpropion, as appropriate, to people who were planning to stop smoking. They also

suggested considering a combination of NRT products to suitable clients (NICE, 2008).

Staff from both services talked about how they thought the service could be improved, and what they thought the 'perfect' SSS would be like. They discussed the SSSs covering more tobacco control issues and not just smoking cessation and how the services needed to be advertised more using techniques such as social marketing. They also discussed how NRT and other medications should be easier for clients to access, how societal attitudes needed to alter so that smoking became even more anti-social and how the services needed to be more pro-active and work more within community settings. These views were in accordance with how current strategy on the development of SSSs is progressing, via the implementation of the 2010 national strategy for tobacco control 'A Smoke-Free Future' (Department of Health, 2010).

#### 6.6.9.1 Wider than smoking cessation

It was discussed that the SSSs should be about more than just smoking cessation and helping people to stop, they should also encompass wider tobacco control. Seven members of staff in total, from both services, discussed how the SSSs should be wider than smoking cessation. This was discussed in two main ways.

Interviewees raised the point that smoking cessation was about more than simply stopping smoking, that there were a number of reasons why people smoked and that often their reasons for both starting and stopping smoking were entwined with many other factors, such as loneliness or anger management.

This led into the second point that was raised, that the SSSs should tackle smoking cessation by linking into these other related problems. So for example, if there was a high prevalence rate of smoking within people who claimed benefits from the government, then the SSSs should link in with the services that provide these

benefits. Thus when they claim their benefit, they could also receive information about smoking cessation, thus increasing reach and accessibility of the SSSs.

*Its linking in on the back of as many projects as we can but you know exercise programs, obesity programs ... I'm just thinking about hard to reach people who have a load of other issues on their plate as well so there's a bit more opportunity for everything to be a bit more under one umbrella might help* (Matilda)

NICE guidance and the government's 2010 comprehensive tobacco control strategy supported this, as they recommended that the SSSs should have established links between other services. For example family planning clinics and ante-natal services to ensure that HCPs used every opportunity available to them to offer smoking advice, especially through other services which linked into smoking (NICE, 2008; Department of Health, 2010).

#### 6.6.9.2 The perfect stop smoking service

Staff discussed what they would like to see from the SSSs in a 'perfect' world, where funding and resources were not an issue. This was a chance for the staff to express their 'wish list' for their SSS. Issues discussed included more advertising and social marketing, providing free NRT which was easier to access, changing attitudes towards smoking and increasing the amount of advisors working within community settings.

Many of the staff discussed the importance of further social marketing to understand what support smokers actually wanted and advertising to make sure that smokers were aware of what the service had to offer. There was much talk of past advertising and social marketing, including how successful national and local campaigns had been, talk of the services past campaigns and discussion about past and present national campaigns. Advertising and social marketing was discussed by slightly more staff from Stoneyshore than Mackersbury.

Many of the staff talked about advertising campaigns that they felt were very successful, and that clients had talked about during their sessions. Some of these campaigns were award winning. For example, the 'Get Unhooked' campaign won Marketing Week's campaign of the year award in 2008 and the 'Wanna be like you' campaign won the Thinkbox TV Brilliance award in June 2008 and the IPC Media Planning Award for Best Use of Consumer Insight in June 2009 (Department of Health, 2010).

*The 2003 one with the mum and baby, well the children sitting down on the stairs and playing music, twinkle twinkle little star, and then the smoke coming out of their mouth that was really effective with clients ... you know I think those adverts really do get home ... it does seem to tap into people psych, but I think perhaps locally you need to back it up with, 'we're here' (Gaby)*

As Gaby explained above, some of the advertising campaigns from the past really 'do get home' and have had an impact on quit attempts. However Gaby went on to say that these national campaigns needed to be backed up with local advertising so that smokers who were thinking about quitting smoker, knew where to turn to for support.

There was also a lot of discussion about social marketing, which was a fairly new concept. It was a way of finding out more about what the public, that were being targeted, actually wanted. This approach seemed very popular with many of the staff, who believed that the best way to bring more smokers into the service was by finding out exactly what they wanted and then providing it. In the 2010 comprehensive tobacco control strategy, the government expressed their intentions to use social marketing to do as the staff had suggested (Department of Health, 2010).

*I would then set up some social marketing kinda stuff, media advocacy and various kinds of schemes relating to the public, getting the public in, actually building up services from the bottom up and looking at what people really want (Isabella)*

In addition to this, it was believed by many that medication to help stop smoking should be provided to clients free of charge. It was believed that NRT should be free to all smokers who were motivated to quit, many of the staff also stated that medication should be easier to access. Another aim set out by the government in the tobacco control strategy was to increase the availability of smoking cessation treatment to those who wished to quit smoking (Department of Health, 2010).

*I would like to do free NRT, for people for maybe six weeks or something ... For everyone who's motivated to stop ... I mean I know its practically impossible but maybe six weeks free ... its one of those things were you get people who smoke, you know 20, 30 a day, come in and say 'ooo, I cant afford £6.80' and you just think 'hummm' but ... I think that it's a bit of a hook if people think they are getting something for free ... that's just given to them, I think its good (Amy)*

There was much discussion about how the staff believed that society's perceptions of smoking were beginning to change or that they hoped in the future that perceptions would begin to change to become more anti-smoking. They felt that if society had a different attitude towards smoking, then more people may wish to stop smoking and more smokers may access the service. This issue was discussed by two members of staff from Mackersbury and six members of staff from Stoneyshore.

*I'm just trying to think of an example here I don't know, but slavery. There was a time when our country, where people would bring slaves, and sell them and actually, socially, there were some people who though it was a bit wrong, a lot of people that thought it was really good, and other people who were just ambivalent about it, ... now our generation looks back at that now and just is just appalled that that socially and ethically could be accepted, ok, so how have we moved from that to where we*

*are now, that is where I would like to spend all my money, on marketing and raising awareness of the fact that we have this drug that kills people, we are using it all over the place, and people are dying from horrible, disastrous diseases and I do fully believe that generations in the future will look back at the way we use this and think, oh, my, what the hell were we doing* (Nathen)

Here Nathen compared the way attitudes towards smoking were changing with attitudes towards slavery in the early 19<sup>th</sup> century. In a similar way others compared the change in attitude to how people used to feel about wearing a seatbelt. When the seatbelt law was first implemented, it was thought to be quite alien, where as now very few people would travel in a car without wearing a seatbelt. This, along with the slavery example, was used to illustrate how public attitudes could change dramatically.

Many of the staff from both services discussed pro-active work that they were currently carrying out or pro-active work they hoped to initiate in the future. It was discussed that SSSs should be more pro-active and less reactive. Working more within community settings, going out and actively reaching people where they lived and bringing them into the service.

*What we need is a lot more people actually out in the community, talking directly to people who smoke in the community, doing more brief intervention type work, so your looking at having a lot more people who are actively involved in trying to get people to think about giving up smoking* (Felicity)

#### 6.6.10 Theme 10: Future challenges for smoking cessation

A list of challenges faced by SSSs was compiled by Moody (2006), this included staffing concerns, problems with targets, bureaucratic issues, lack of sufficient funding, practice based commissioning and engaging with disadvantaged communities.



Despite SSSs helping many people to quit since 1999, smoking cessation rates were still lower in those from routine and manual groups. Government policy recommended that SSSs should target BME and lower SES groups in the local population (Department of Health, 2007b; Department of Health, 2010).

A range of obstacles and challenges that faced the SSSs were discussed by staff from both Mackersbury and Stoneyshore. The main issues raised included accessing these 'hard to reach smokers', keeping the service in the public eye, being restricted by the NHS and PCT bureaucracy, targets and lack of funding.

#### 6.6.10.1 Accessing 'hard to reach' smokers

Staff from both services talked about finding it difficult to access and engage with smokers from hard to reach groups, such as pregnant women, lower SES groups, and young people. This was discussed by two members of staff from Mackersbury and four from Stoneyshore.

*I guess the biggest challenge is working with the most hard to reach people and actually getting out there finding those people, getting the message across to people, being able to deliver the work to people, who wouldn't historically come and find us* (Kristen)

This was something that was repeated again and again, ways suggested to overcome this challenge linked back into the theme 'Your vision of a better service'. For example, by increasing advertising and social marketing, providing free medication, changing society's attitudes towards smoking and having more advisors working pro-actively within the community.

#### 6.6.10.2 Keeping the service in the public eye

Some of the staff worried that the service must keep reinventing itself to stay fresh in people's minds, so that smokers were aware of where to go when they were ready to quit.

*Access, clients accessing us, clients wanting to use us, their knowledge of our existence and their inclination to use us, that's the biggest challenge, them understanding just what it is we have to offer* (Nathen)

Suggestions of how to keep the service in the public eye included reinventing the service constantly, advertising and promoting the service and taking the service into the communities to reinforce what support was available.

#### 6.6.10.3 Being restricted by the National Health Service and Primary Care Trust bureaucracy

Three of the staff, from both services, discussed rigid rules and regulations within the NHS that stopped staff using their expert knowledge to be creative and make positive changes. They illustrated frustration and anger at the restrictions that they believed existed.

*So your always fighting a battle, you know trying to get things like varenicline on the formulary, there's so much red tape within the pharmacy department, they wont, what there not seeing is that we are the health professionals, we know what we're talking about, they should have the trust and the faith in us to know that what we are talking about is right* (Isabella)

The staff did not suggest any ways to overcome this challenge, however they highlighted that it was a problem that most people working within the NHS faced. A number of them acknowledged that although they were angry with the barriers that

they faced, they were aware that other SSSs had faced similar and sometimes worse internal obstacles, as Isabella had previously illustrated.

#### 6.6.10.4 Targets

The issue of targets had been discussed in more detail within the theme 'Smoking cessation, you and the National Health Service', however many of the staff from both of the services talked about having to achieve unrealistic targets as a challenge for the future. They highlighted that this could reduce treatment down to simply reaching numbers and thus compromising client care.

*I think that a lot of pressure is put on targets ... I think that targets can be limiting because your more worried about getting the tick in the box, ... I think they can also become a bit 'oh for gods sake, you know, I'm just here for targets', and I think that that can be, get you down after a while* (Jessica)

A few suggestions were made as to how to overcome the challenge of high targets. These included inspections similar to those that occurred within schools, or a qualitative type review, where the quality of the service was assessed through written and verbal reports, as opposed to statistics and targets. To some extent these suggestions concur with recent developments such as the creation of the National Support Team for services within the Department of Health, who conduct inspections and visit services.

Many staff did not have a realistic alternative to targets, and although some said that they understood the need for targets, the general feeling was that they caused high amounts of pressure and were seen as a major challenge for the future. The tobacco control strategy raised the issue of SSSs targets, highlighting that this was an area that needed to be further evaluated and addressed (Department of Health, 2010).

#### 6.6.10.5 Funding

The issue of not having enough funding was covered under the theme 'Smoking cessation, you and the National Health Service'. However it was included again here because it was suggested repeatedly that the services lacked funding, and funding was needed to overcome all other challenges that the services faced.

*Well the biggest challenge is funding you know, actually making sure that we are properly funded* (Isabella)

It seemed that funding was a key element to enable the SSSs to function at their maximum potential, and that the majority of the other issues or problems that the services faced would be easier to deal with, or could be overcome, if more funding was available.

### 6.7 Limitations

There were three key limitations within this research. The first was that the participants were NHS SSSs staff, that were being interviewed about the SSSs within their SSS head offices. It could be suggested that the staff may not have been completely open and honest about their feelings towards the NHS and the SSSs. They may have felt the need to praise the NHS or respond in an entirely positive manner towards the SSSs. It was felt however that this did not occur. The staff were repeatedly informed that the researcher was independent and had no connections to the NHS. Their responses were anonymous and were reported within the research using pseudonyms, making them unrecognisable. It was also noted that despite many positive discussions regarding the NHS and SSSs, there was also some criticism of the NHS and SSSs. It was therefore believed that the staff reported their true feelings and provided honest responses to the questions.

Secondly some of the questions required the staff to recall how they felt about situations that had occurred in the past. This may have produced some recall bias and what was reported may not have been what actually occurred. However this could not have been avoided due to the timing of the interviews in relation to the introduction of the smoke-free legislation.

A final limitation was that only two SSSs were involved in the interviews, in addition to this it was only the core staff who were interviewed, as opposed to all of the staff, including community advisors. The findings and conclusions drawn may not therefore be representative of all SSSs and all SSS staff.

## **6.8 Conclusions**

This chapter used qualitative interviews to gain a more in depth understanding of NHS SSSs from the perspective of the SSS staff. It explored the smoke-free legislation and smoking generally in more detail from the perspective of the SSS staff.

Many of the staff illustrated a passion for smoking cessation and the work that they did within the service. However when they talked about promotion opportunities available to them in the NHS, many of them felt that there were very few opportunities, especially within the SSSs. Some were very positive about training opportunities, where as others claimed to have had little opportunity. When asked if they would be staying in the field of smoking cessation, very few of the interviewees confirmed that they intended to and those that did provided little other detail in relation to this.

It was discussed that the work carried out by SSSs always had the client's best interest in mind and that staff went out of their way to provide the best quality of care that was possible. Empathy was shown by many in relation to how easy it was to initiate smoking, and how difficult it was to stop. In contrast with this however, some

expressed disappointment or anger at how the client was not always the main priority to other people, such as some of their senior management.

Some staff did not feel that they were respected by some colleagues within the NHS and that sometimes they were not given the responsibility or authority that they felt they deserved. It was suggested that sometimes 'bureaucracy' and 'red tape' within the service and NHS prohibited or interfered with staff duties. Positive feelings towards the NHS included discussion of the staff benefits, as well as supportive and understanding management. In contrast with this however, some were critical about the NHS, for example pressure from the Department of Health, lack of promotion opportunities, lack of guidance, lack of trust from management and lack of funding.

Targets were repeatedly discussed, often in a negative context. They were said to be unrealistically high, adding unnecessary pressure to the staff and could have the ability to reduce individuals down to numbers. To improve their role, staff suggested removing targets, providing the SSSs with more time, money and resources and making smoking illegal.

Some of the staff were able to describe a typical client, others said that this was impossible and it did not exist, as their clients were of all ages, from all walks of life, with a range of personalities, expectations and reasons for wanting to quit smoking. Reasons for their clients giving up smoking included a health shock, public stigmatization, how smoking affected their appearance, the cost of smoking and that they had simply 'reached a point in their life'. Differentiations were made between self referral and GP referral clients. Others drew the distinction between clients who wanted or expected support, motivation and counselling alongside medication, and others who simply expected to pick up a prescription and nothing more.

Staff attitudes towards the smoke-free legislation were almost all positive, however some negative aspects of smoke-free legislation were discussed. These included

smoking becoming more public and that smokers had been made to feel stigmatised and alienated.

Staff discussed the legislations impact upon the structure of their service and some alterations to their role were mentioned however it was generally felt that the legislation had not led too much of a change within their role. It was said that the legislation had not led to changes in pressure upon them at work. Some staff felt that they had seen more clients and some felt that they had seen less since the legislations introduction.

Staff felt that smoke-free had made it easier for people to quit smoking, but it kept being repeated that although the legislation helped people to stay quit it was not the primary motivational factor for them quitting in the first place. Some of the staff thought that the type of client attending the service had changed, with more 'hard to reach' smokers coming forward for support.

Most staff felt the transition to smoke-free had been positive, the public had accepted it and the transition was smooth. It was said that many of the public had responded in a positive manner towards the legislation, but there were also some negative responses experienced by the staff, where people were angry or upset about the legislation.

There were conflicting views as to whether the service's profile had changed, some felt that their service was more known about because of the legislation. Other members of staff thought that there had been no change in profile, and if there was, it was due to reasons other than the legislation.

Other organisations were discussed, for example how they were involved with implementing smoke-free, how they worked positively alongside the SSSs and also how they could, at times, be a negative influence as well. There was a mixed opinion about how well the smoke-free legislation had been enforced.

Staff felt that SSSs should be about more than just smoking cessation, they should encompass wider tobacco control. The importance of further social marketing was discussed to understand what support smokers actually wanted. As well as advertising to make sure that smokers were aware of what the service had to offer. It was felt that medication to help smokers to stop should be provided to clients free of charge and should be easier to access. Staff also felt that all services should work in a more pro-active manner.

Staff talked about finding it difficult to access and engage with smokers from 'hard to reach' groups and felt that services must keep reinventing themselves to stay fresh in people's minds. Many of the staff discussed being unhappy about having to achieve unrealistic targets and it seemed that funding was a key element to enable the SSSs to function at their maximum potential.





## **Chapter 7:**

### **Cognitive Dissonance Theory**

This chapter, exploring the constructs of cognitive dissonance theory, was situated as the preceding chapter to Chapter 8, as it introduced the theoretical framework which formed part of the analysis in Chapter 8, exploring behaviour of recent ex-smokers and smokers in the process of quitting following the introduction of smoke-free legislation. Cognitive dissonance theory is suitable to explain these smoking behaviours as they often fit the four criteria which need to be satisfied in order for dissonance to occur, this is explained in more detail within this chapter. It is critical to the PhD to understand the impact of the smoke-free legislation upon recent ex-smokers and smokers in the process of quitting, and what implications it had upon their smoking and quitting behaviour. Cognitive dissonance theory is used to assist with this process.

#### **7.1 The development of cognitive dissonance**

‘The study of health behaviours is based on two assumptions: that in industrialised countries a substantial proportion of the mortality from the leading causes of death is due to particular behaviour patterns, and that these behaviour patterns are modifiable’ (Conner and Norman, 2005, p1).

One of the original theories to explore health behaviour was attribution theory (Heider, 1944), which argued that individuals were motivated to see their social world as predictable and controllable. Shortly after this, following the development of Edwards subjective expected utility theory (1954), psychologists began to consider the importance of cognitions in predicting health behaviours. Around this time another important development occurred, with the proposal of cognitive dissonance theory.

The theory of cognitive dissonance originated over 50 years ago, developed by a psychologist named Leon Festinger (1957). It has since become a predominant theory within social psychology, as well as being used by other disciplines including economics, political science and anthropology (Aronson, 1992). Despite

its varying popularity over the years, it is a theory that has continued to be used for a variety of academic and clinical purposes (Scher and Cooper, 1989; Aronson, 1992; Stice et al., 2008).

The original theory stated that if a person held two cognitions that were psychologically inconsistent, they would experience cognitive dissonance and would attempt to reduce dissonance, in a similar way that they would attempt to reduce hunger, thirst or any other drive (Festinger, 1957).

Festinger and colleagues proposed the idea of cognitive dissonance whilst studying rumour transmission in India. Following an earthquake, Prasad (1950) had noted that rumours of an even more violent, destructive earthquake had spread to the surrounding areas of the region of greatest destruction. This interested Festinger and his colleagues as they wondered why people were spreading fear provoking rumours at a time of such panic (Goethals, 1992). Festinger (1957) hypothesised that people who lived just outside of the most affected area were very afraid; however they did not really have anything to be afraid of, so they spread the rumours to justify their anxieties.

This phenomenon was labelled cognitive dissonance; when an individual holds two conflicting or inconsistent cognitions (Festinger, 1957) e.g. 'I am scared' and 'knowing there is nothing to be scared of', or when they act in a way that is inconsistent with their underlying attitudes e.g. 'I believe in healthy living and treating my body well' and 'I smoke 30 cigarettes a day'. This counter-attitudinal behaviour may cause the individual to experience psychological tension or discomfort, often resulting in dissonance; they may then be motivated to alter either the attitudes or the counter-attitudinal behaviour to reduce or remove the dissonance, and achieve consonance (Festinger, 1957).

Festinger (1957) outlined four criteria which needed to be satisfied in order for dissonance to occur;

- The inconsistent behaviour needed to be freely chosen

- There had to be some commitment to the behaviour
- Some adverse or undesired consequence needed to result from the behaviour
- The consequence needed to have been foreseen or foreseeable

The theory of cognitive dissonance emphasised the essential interaction between motivation and cognition (Goethals, 1992). This was the first theory that allowed social psychologists to experimentally demonstrate that individuals think in a scientifically complex manner and do not simply respond to reinforcement (Aronson, 1992). It was an illustration of how attitude could, consciously or not, lead to behaviour change and inversely how behaviour could result in attitude change, the latter being more common. Cognitive dissonance was essentially a theory about how people made sense of their lives, environment, attitudes and behaviour (Aronson, 1992).

One of the original experiments which was said to demonstrate the existence of cognitive dissonance was that of Festinger and Carlsmith (1959). Participants were paid either a high (\$20) or low (\$1) sum of money to tell a fellow student that a dull task was actually interesting and fun. In a following test of attitude, lower paid participants expressed a more favourable attitude towards the task than higher paid participants and control participants who were not paid at all (Festinger and Carlsmith, 1959). Festinger and Carlsmith attributed this change in attitude to cognitive dissonance; the counter-attitudinal behaviour led the participants to experience dissonance. Those in the lower paid group changed their attitude to regain psychological consistency. Those in the higher paid group did not change their attitude however as they were able to justify their counter-attitudinal behaviour by attributing it to being paid, thus dissonance was not present in these participants. Festinger and Carlsmith (1959) theorised that it was the motivational force provided by the drive towards cognitive consistency that changed the attitudes of the lower compensation participants.

This chapter will now discuss research that supports the work of Festinger and Carlsmith (1959) and provide evidence of cognitive dissonance in practice. It will

go on to explore different variations and critical approaches to cognitive dissonance. The structural overview of cognitive dissonance theory can be seen in Figure 7.1. The theory of cognitive dissonance is applied in this thesis to smoking behaviour; for this reason examples are given throughout this chapter of how cognitive dissonance relates to smoking behaviour.

Many researchers have replicated Festinger's research or tested his theory further. Aronson and Carlsmith (1963) showed that, in the widely used 'forbidden toy experiment', where a child was left alone in a room with an attractive toy and told not to play with it and were then informed that there was either a mild, or severe threat of punishment, children showed higher devaluation of an attractive toy under a mild threat than severe threat. Cognitive dissonance would explain that the behaviour of not playing with the toy was inconsistent with the cognition that the toy was very attractive, leading to dissonance. Under severe threat of punishment the child could sufficiently justify not playing with the toy, where as this was not the case under the mild threat of punishment. The child therefore reduced the dissonance experienced by devaluing the toy, resulting in a change in attitude and convincing themselves that it was not actually that attractive (Aronson and Carlsmith, 1963).

Wicklund and Brehm (1976) supported the work of Festinger (1957) by concluding that a change in attitude resulted from a need for psychological consistency among important cognitions. More recently, work by Black-Becker et al. (2006) demonstrated further evidence of the existence of cognitive dissonance and illustrated its effectiveness in a naturalistic setting, by reducing eating disorder risk factors and preventing the onset of bulimic behaviours in students from six university campus sororities. In a similar piece of research Stice et al. (2008) successfully illustrated how dissonance-based interventions could prevent the development of eating disorders in young women, further supporting Festinger's (1957) work.

## **7.2 Further development and critique of cognitive dissonance**

In spite of previously mentioned support, throughout the years there have been some suggested amendments to the theory. Although this research did not directly disagree with Festinger, it suggested that there were elements missing or that Festinger's theory, as it stood, was inadequate in particular contexts. This chapter now discusses these later developments and critiques of cognitive dissonance theory.

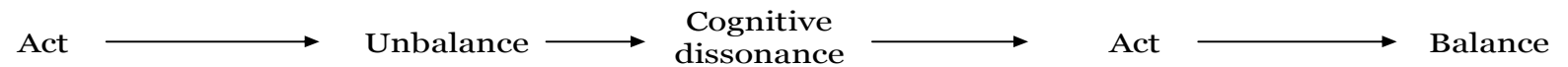
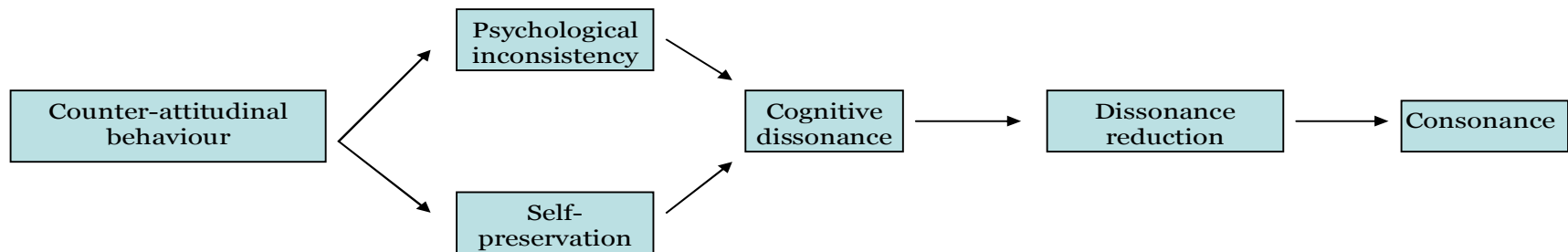
Most research in the area of social psychology and cognitive dissonance theory agrees that in order for cognitive dissonance to occur the individual needs to perform a counter-attitudinal behaviour as Festinger (1957) theorised. As previously stated this was a behaviour which was inconsistent with an attitude held by the individual. For example, if a smoker was making a quit attempt, they may think of themselves as an ex-smoker, this was the attitude, however if they then smoked, this was the inconsistent behaviour. There was little dispute that this was the basis for cognitive dissonance to occur.

Research has highlighted factors which can have an amplifying effect on the impact of the counter-attitudinal behaviour upon the individual. For example, when the counter-attitudinal act was performed in front of an audience the impact of the behaviour upon the individual was greater than when performed alone (Green et al., 2005). Alternatively, if an ex-smoker who was a number of weeks into a successful quit attempt smoked a cigarette, they may experience greater dissonance if they smoked in front of others compared to when no-one else was present. When Paulhus (1982) conducted research where participants were expected to lie about a boring task under a number of different conditions, he hypothesised that people could tolerate this kind of inconsistency when alone, but not in the presence of others. Opposing research has not been widely published, however as many theorists had not included it in their explanations of cognitive dissonance, this could imply that they did not see it as an essential criterion for cognitive dissonance to occur.

Alternatively free choice has been included in the theory by some to increase the impact of the counter-attitudinal behaviour upon the individual. In his original theory Festinger (1957) discussed choice, explaining that if a person felt that they voluntarily performed the behaviour then the dissonance would be increased, as otherwise they could attribute the inconsistent behaviour to the demands of the situation, thus dissonance may not occur. Collins and Hoyt (1972) suggested that counter-attitudinal behaviour should arouse dissonance only under high choice conditions. However others, such as Baumeister and Tice (1984), through their experiments involving forced essay writing, challenged the essential nature of free choice, claiming that although it could be a factor that might influence the occurrence of cognitive dissonance it was not essential. These differences in research findings could suggest that further research is needed to explore the role of free choice in the experience of cognitive dissonance. Alternatively, it may be the case that the difference is within the individual, where free choice is important for some people in the experience of cognitive dissonance, however, not important for others.

In the original theory (Festinger, 1957) it was stated that a counter-attitudinal behaviour led to psychological inconsistency, thus resulting in cognitive dissonance. Although many theorists believed that a counter-attitudinal behaviour led to cognitive dissonance, there were two distinct pathways of exactly why this cognitive dissonance was encountered. Cognitive dissonance was said to either occur through psychological inconsistency as theorised by Festinger (1957), or due to self-preservation, as suggested by many, including Aronson et al. (1974). Within these two pathways were a number of variables which may result in the individual experiencing cognitive dissonance. These multiple factors could be involved in both creating and reducing dissonance in an individual, depending upon the intensity and direction of the variable in relation to the dissonance (see Figure 7.1). These two pathways will be explained and explored further now.

**Figure 7.1: Structural overview of cognitive dissonance theory**





### **7.3 Psychological inconsistency**

As originally proposed by Festinger (1957), psychological inconsistency was a feeling of discomfort or tension which led to a negative dissonance state caused when two cognitions were inconsistent with each other. A number of variables had been suggested which resulted in psychological inconsistency. These included attitude change, trivialisation, act rationalisation and perceived threat and could occur individually, in combination or all at once.

Cognitive dissonance theory in its most straight forward form states that a counter-attitudinal behaviour leads to psychological inconsistency resulting in cognitive dissonance, and as such attitude change occurs in order to reduce this dissonance (Festinger, 1957). This original concept was supported by Leippe (1994) who found that when experiencing cognitive dissonance people shifted their attitudes to reduce the perceived inconsistency between the original and new attitude. Gibbons et al. (1997) studied the impact of relapse upon smoker's cognitions and focused upon people who had been unable to permanently change their smoking behaviour. This led to dissonance and as these individuals were unable to alter their behaviour, they instead altered their attitudes towards smoking, thus reducing their dissonance. Attitude change could however be a cause of cognitive dissonance, as well as a form of reduction. Stice et al. (2008) demonstrated this by using dissonance-based interventions for the prevention of eating disorders. Stice and colleagues were able to induce cognitive dissonance in young women, by providing them with information about eating disorders and introducing interventions which led the women to change their attitudes towards the 'thin ideal'. Thus illustrating that attitude change can both lead to and reduce cognitive dissonance.

Trivialisation was a way of reducing the validity, importance of the information or behaviour that led to the cognitive dissonance. The level of trivialisation that occurred would impact upon the amount of dissonance experienced by the individual. Using the example of smoking, a smoker may reject the validity of the health warnings that link smoking to disease (Rappaport et al., 1968). Festinger (1957) alluded to this in his early research by stating that an individual may belittle

the evidence that led to the inconsistency. The attitude and behaviour did not change, but the importance granted to the attitude or behaviour was modified. Peretti-Watel et al. (2007) described this as having self-exempting beliefs that helped smokers reduce dissonance, for example 'I'm sure smoking only leads to cancer in some cases, not in a healthy person like me'. Peretti-Watel and colleagues found that half of the smokers that they interviewed believed that physical exercise or living in a fresh air climate could protect them against smoking related diseases and a third believed that they had not smoked for long enough to be exposed to the dangers of smoking. Thus these smokers had trivialised the dangers of smoking, resulting in a reduction of cognitive dissonance (Peretti-Watel et al., 2007).

A further way to alter the amount of dissonance experienced was via act rationalisation, also known as motivated reasoning. Act rationalisation was defined as performing a second act that was consistent with the counter-attitudinal act (Martinie and Fointiat, 2006). The more that an individual applied act rationalisation to a counter-attitudinal behaviour, the less cognitive dissonance they would experience. Johnson (1968) examined the functional significance of differing beliefs in smokers and non-smokers and found that smokers experienced cognitions which allowed them to justify their continuation of smoking, however if this justification was not sufficient they still experienced dissonance. Paulhus (1982) suggested that smokers were able to rationalise their behaviour in a similar way to that of the participants in the original Festinger and Carlsmith (1959) study. Festinger (1957) described these as self-justifying cognitions, where cognitions were made to fit behaviour, and if they did not, then there was pressure to make them fit to avoid experiencing dissonance.

In a similar way to act rationalisation, research demonstrated that the way that people perceived threat, in relation to a counter-attitudinal behaviour, could impact upon the amount of cognitive dissonance they experienced in relation to carrying out the act, which was especially true with smokers (Oakes et al., 2004). Peretti-Watel et al. (2007) explored smokers risk denial about smoking hazards and their readiness to quit; they found that a quarter of respondents believed science and medicine would soon find a treatment to cure smoking related disease, a further

quarter thought they were protected by family genetics or the way that they smoked and one third did not believe that they had smoked enough to result in smoking related disease. Those who held these beliefs were found to be less ready to quit smoking (Peretti-Watel et al., 2007). Peretti-Watel and colleagues explained these findings by suggesting that those who had a lower perceived threat of smoking, experienced a lower degree of cognitive dissonance and thus were less ready to change their behaviour and quit smoking.

Keller and Goldberg Block (1999) suggested that people may be able to reduce their perceived threat by freezing or discontinuing the processing of information that may increase threat. For example, a smoker may look at a health warning on a cigarette packet, but not consider or process it, leading to a reduction in perceived threat, stopping them from experiencing cognitive dissonance and thus allowing them to continue to smoke. This supported Gibbons et al. (1991) who found that when smokers decided to quit, their perceived threat was high and an important motivation factor. Those with weaker perceived threat were also more likely to relapse earlier than those with a higher perceived threat. After relapse, perceived threat began to slowly increase again, when it reached a certain threshold once more, cognitive dissonance increased and to resolve this they made another quit attempt. This conclusion did not however take the power of nicotine dependence into account. It must be considered that although the individual's motivation to quit may be high due to increased perceived threat, they may still be unsuccessful at changing their behaviour due to the power of their addiction.

#### **7.4 Self-preservation**

A number of researchers have tried to refine Festinger's theory and have suggested that individuals do not experience cognitive dissonance because of psychological inconsistency, but instead via a process of self-preservation. This refinement of the theory proposed that cognitive dissonance occurred when there was a discrepancy between a cognition about the self and the way that the individual had behaved. Aronson et al. (1974) suggested that when the concept of the self was threatened, the individual often felt foolish or guilty in front of others, which in turn resulted in cognitive dissonance. Steele and Liu (1983) concluded

that any inconsistency that threatened ego functioning, or identity could arouse cognitive dissonance, however unlike Festinger's (1957) theory the motivating aspect was not the inconsistency, but the threat to ego functioning thus resulting in self-preservation.

There were a number of variables which had been suggested to contribute to the idea of self-preservation and thus the occurrence of cognitive dissonance, supporting the refined version of cognitive dissonance theory. These included self-affirmation, self-concept or identity, self-blame, self-esteem and self-consistency.

Steele (1988) first suggested the concept of self-affirmation in relation to cognitive dissonance, stating that dissonance was aroused by the implications of inconsistency, as it implied that the individual was not adaptively or morally adequate. Steele suggested that any inconsistency that threatened 'integrity of the self' would lead to dissonance. Steele and Liu (1983) had previously conducted research where cognitive dissonance was induced in participants, in one group they were allowed to confirm a value that was important to them before the dissonance was aroused. Participants in this group experienced less dissonance than those who did not confirm this self-affirming value. Steele and Liu suggested that self-affirmation reduced the 'sting to the self', thus the more self-affirmation that an individual experienced, the less dissonance they would arouse (Steele and Liu, 1983).

An alternative idea was that dissonance was experienced when there was a discrepancy between a self-image, such as being someone who had quit smoking, and a behaviour, such as smoking, thus the individual's identity would become threatened. In work such as Stice et al. (2008) where dissonance-based interventions were used to prevent eating disorders, the participant's self-concept was challenged. If an individual saw themselves as something, for example a smoker, but they stopped smoking, their behaviour would not match their self-concept. If this view of the self changed and they began to view themselves as an ex-smoker, then their self-concept would not be threatened, dissonance would not be experienced and they would be less likely to relapse. This work with eating disorders may not translate directly to smoking behaviours however, as the power

of the individuals nicotine dependence may override their desire for their behaviour to match their self-concept. Killen (1985) used this technique to change teenager's self-concept; they carried out role play where the adolescents practiced skills for refusing to try cigarettes, thus changing their self-concept to become a teenager who did not want to start smoking.

A behaviour which challenged an individual's identity could result in self-blame. Self-blame was said to occur when an individual took responsibility for a negative consequence. Wicklund and Brehm (1976) suggested that without personal responsibility the dissonance was not relevant to the individual, and they would therefore not feel self-blame, thus they would not experience further cognitive dissonance. Keller and Goldberg Block (1999) explored cognitive dissonance in relation to health related persuasion and suggested that dissonance was provoked by the attribution that the individual had been foolish for their beliefs or for engaging in the behaviour, thus the more self-blame an individual felt, the more dissonance they would experience. Cooper and Fazio (1984) had previously made a similar conclusion that dissonance was experienced only when the individual was aware that they had brought about the adverse event themselves.

In 2006, Martinie and Fointiat conducted research to explore the role of self-esteem in the experience of cognitive dissonance; they concluded that people with differing levels of self-esteem experienced cognitive dissonance to varied degrees (Martinie and Fointiat, 2006). This supported previous work by Steele (1988) who had suggested that those with low self-esteem experienced more dissonance than those with high self-esteem, as those with higher self-esteem had more positive self-dimensions to consider when threatened. Aronson (1994) however had disputed this arguing that those with lower self-esteem were more accustomed to experience internal inconsistencies, so felt less dissonance than those with higher self-esteem. Gibbons et al. (1997) explored the relationship between self-esteem and dissonance, their findings supported those of Aronson (1994). The differences highlighted between Aronson's and Martinie and Fointiat's findings may have occurred due to their definitions of self-esteem. As a subjective concept, it is difficult to define and measure, meaning their findings may not have been directly comparable.

Aronson (1992) highlighted the importance of self-consistency, discussing the 'induction of hypocrisy' where people experienced dissonance when they did not 'practice what they preached'. Preserving a consistent self was of vital importance and if this consistency was threatened he stated that cognitive dissonance would be eminent (Aronson, 1992). This linked back to the preservation of an individual's identity. For example, an ex-smoker who repeatedly talked about how good it felt to have stopped smoking and encouraged total abstinence in others, may experience dissonance if they were to then smoke. Baumeister and Tice (1984) suggested that dissonance occurred when people were concerned with how others perceived them. They hypothesised that cognitive dissonance was not a result of internal inconsistency as first suggested by Festinger (1957). Tedeschi et al. (1971) stated that the dissonance experienced was nothing more than an individual's attempt to make a good impression upon their audience. Tedeschi and colleagues denied that any resulting attitude or behaviour change was genuine, but instead suggested that the person acted like they had changed to look good to others. It may be the case that the social pressure instigated the change in attitude or behaviour, however in opposition to this theory, a genuine change had occurred. This did not necessarily mean that the change would be permanent however.

## **7.5 Reducing cognitive dissonance**

Once cognitive dissonance had been aroused, either via psychological inconsistency or self-preservation, the individual would be motivated to reduce or remove the state of dissonance in order to return to a more comfortable state of consonance. Research has suggested that this could occur through several methods, including attitude change and trivialisation as previously mentioned, as well as behaviour change, denial of responsibility, selective exposure and conformity with others.

As well as attitude change and trivialisation, behaviour change often occurs in response to experiencing cognitive dissonance, so that the new behaviour is consistent with the prior attitude or behaviour (Festinger, 1957). For example, if a smoker learnt of some new knowledge about the dangerous effects of smoking

upon health, they may experience cognitive dissonance. This could, as illustrated previously result in a change in attitude. For example, to believe that the evidence behind this new information was weak, or that the risk would not apply to them, alternatively they could change their behaviour, e.g. stop smoking. Both attitude change and behaviour change are effective at reducing dissonance; however attitude change is used more frequently as it is easier to alter (Festinger, 1957). In relation to smoking, it is more beneficial if an individual changed their behaviour and stopped smoking as opposed to changing their attitude and ignoring the health risks.

If feelings of responsibility increased levels of dissonance arousal, then denial of responsibility should reduce it (Gosling et al., 2006). Gosling and colleagues found that denial of responsibility often occurred when cognitive dissonance was experienced, and as a result, dissonance was reduced. Denial of responsibility could lead to a reduction of dissonance through a process of disengagement with the individuals own behaviour, removing the negative affect felt and therefore reducing dissonance (Gosling et al., 2006). These findings supported previous work by Scher and Cooper (1989) who suggested that if an individual could reduce perceptions that the self was responsible for the negative consequences then dissonance would also be reduced.

In 1982 Frey conducted research to explore relationships between cognitive dissonance, information seeking and information avoiding. Frey concluded that people preferred information that supported their behaviour, thus resulting in consonance, as opposed to information that conflicted with their behaviour, which could increase dissonance. Information that would increase consonance became more attractive and was sought out, where as conflicting information was avoided (Frey, 1982) which is known as selective exposure. Gibbons et al. (1991) explored the use of selective exposure among smokers who were trying to quit and found that when smokers were in the process of quitting they became more aware of health warnings and smoking related research, thus increasing their risk perception. However, if they relapsed they then avoided this information, seeking out information to discredit the research findings that smoking was a risky behaviour, thus reducing their dissonance.

Stroebe and Diehl (1981) suggested that in situations which would usually lead to dissonance, an individual could experience less or no dissonance if they conducted the behaviour at the same time as others. This may be due to increased social support or by the individual feeling that they were partaking in an act that was socially acceptable. In the reversal of this, if others refused to carry out the behaviour, then this may increase the individuals feeling of dissonance (Stroebe and Diehl, 1981). For example, if a smoker who was trying to quit had a cigarette, under normal circumstances they may experience dissonance, however if other people who were also trying to quit were also smoking, then the dissonance felt by the individual may be reduced.

## **7.6 Conclusion to the critique of cognitive dissonance**

Much research over the past 50 years explored the theory of cognitive dissonance, with adaptations to the original theory being suggested. It was generally agreed by those that subscribed to the theory that a counter-attitudinal behaviour led to either psychological inconsistency or self-preservation, which resulted in the individual experiencing cognitive dissonance. This was an unpleasant state and the individual could be motivated to reduce dissonance, to return to a state of consonance. The pathways that lead to dissonance and the experience of reducing it vary depending upon the individual and the situation that they have encountered. For example, Martinie and Fointiat (2006) suggested that if all of the dissonance was not removed by one method of dissonance reduction, a second method would be introduced. In 1999 Festinger returned to his original theory in 'Reflections on cognitive dissonance: 30 years later' where he highlighted the importance of exploring the many different ways that cognitive dissonance was experienced (Festinger, 1999). Cognitive dissonance is subject to multiple determinants, rather than an outcome of a single invariable process. The theory of cognitive dissonance may be over 50 years old, however it clearly still has much use today and can continue to help explain attitude and behaviour change, and assist in the understanding of the link between cognitions and motivation.



## **7.7 Newer alternatives to cognitive dissonance theory**

Throughout the years other theories have been suggested to explain the relationship between cognitions and motivation, and behaviour and attitude change. These will not be focused upon in the thesis however a selection are briefly described below. These include the health belief model (Rosenstock, 1966), social learning theory (Bandura, 1977), the transtheoretical model (Prochaska and DiClemente, 1983) and PRIME theory of motivation (West, 2006).

The health belief model was originally designed to predict the behavioural response to treatment in a population of acutely ill patients, however it has been developed to predict more general health behaviours. It is based on four core concepts, which are perceived susceptibility, perceived severity, perceived barriers and perceived benefits. Other variables which were later added to the theory included individual differences or demographic variables, perceived control, perceived threat and health motivation (Rosenstock, 1966).

Social learning theory incorporated aspects of behavioural and cognitive learning, suggesting that people learn behaviour through the observation of others. The three main stages of the theory are observing, imitating and reinforcement. If a behaviour is observed to have positive, desired outcomes, then the observer is likely to model, imitate and adopt the behaviour themselves. Likewise if an observed behaviour has negative outcomes, the individual is less likely to learn the behaviour (Bandura, 1977).

The transtheoretical model, also known as the stages of change model is widely used to explain both simple and complex health behaviours. An individual is suggested to move through a series of stages in the process of changing a behaviour. The stages are pre-contemplation, contemplation, preparation, action and maintenance. The model helps to explain or predict an individual's success or failure at achieving a proposed behaviour change (Prochaska and DiClemente, 1983). For many years much smoking cessation treatment has been based upon the transtheoretical model, with a smoker thought to move through the stages of change during their quit attempt. However this model is used less often now, as it

is hypothesised that smokers do not move in a linear motion through the stages, but instead continually move forward and backwards between the different states, often skipping stages as they go.

PRIME theory of motivation is a more recent theory that has attempted to understand behaviour change, particularly in relation to smoking cessation. Put simply, the theory explains that wants and desires only influence actions if powerful impulses are created, beliefs only influence actions if powerful wants and needs are created and plans only influence actions if they are remembered at the appropriate time (West, 2006). The theory suggested that individuals are driven by immediate emotions, wants, needs and triggers; this is something that previous psychological theory had failed to focus upon (West, 2006).

## **7.8 Applying cognitive dissonance**

This chapter has looked at cognitive dissonance, and touched upon how it is experienced by smokers. During the processes of smoking, quitting, relapsing and remaining abstinent smokers can experience cognitive dissonance. The theory has been shown to be relevant to tobacco control and smoking related research, and thus to the current research.

Chapter 8 reports research that explored the views and experiences of stop smoking service (SSS) clients, and sought to determine whether the ex-smokers and smokers in the process of quitting experienced or were experiencing cognitive dissonance. It aimed to explore which variables led them to a dissonant state and which variables, if any, they used to return to a state of consonance. Cognitive dissonance was a useful framework for analysis, with the interview questions focusing upon the client's attitudes towards smoking and other smokers, changes in awareness of health impacts of smoking, feelings of stigmatisation for being a smoker and current attraction to smoking.

From previous research it was hypothesised that ex-smokers and smokers in the process of quitting would experience cognitive dissonance around the time that they decided to stop smoking. For example, their identity as a smoker may have

been inconsistent with their attitudes towards smoking, thus resulting in cognitive dissonance. In order to reduce the dissonance experienced, the individual may have decided to stop smoking, thus returning to a state of consonance. Due to the complex nature of smoking however, such as the power of nicotine dependence and the long term previous use by smokers, it was anticipated that there may have been multiple other factors which emerged as important to ex-smokers and smokers in the process of quitting smoking, in relation stopping smoking (see Chapter 8).



## **Chapter 8: Interviews With National Health Service Stop Smoking Service Clients**

### **8.1 Context**

Data reported within this chapter was collected in November 2008, 16 months following the introduction of the smoke-free legislation in England. It was important to highlight tobacco control policy and nation wide National Health Service (NHS) anti-smoking advertising campaigns that were recent (within the previous six months) or current at the time of interview, as these may have influenced the client's responses.

Between June and September 2008 a television advertising campaign ran entitled 'Wanna be like you', with the tagline 'smoking, don't keep it in the family'. Through childlike imagery, smoking was shown through a child's eyes, highlighting to parents who smoke that their smoking could dramatically increase their children's chances of becoming a smoker. This was followed by the 'Reasons' and 'Scared' television and poster campaigns which were run in parallel between October and December 2008. 'Reasons' highlighted the many reasons to quit smoking, focusing on the positive effects that quitting can have upon family life, whilst 'Scared' emphasised the fear felt by children of smokers that their parents were going to die because of their addiction (Department of Health, 2009c). In October 2008 hard-hitting pictorial warnings were introduced on cigarette packets (Department of Health, 2010). At the time of interview both types of cigarette packets, with either a written warning or a pictorial warning, were available to purchase.

### **8.2 Introduction**

Previous chapters explored the NHS stop smoking services (SSSs) and the smoke-free legislation from the perspective of the SSS managers and cessation advisors, however the other essential component in the functioning of SSSs are the clients that access them. In order to gain an understanding of how the

legislation impacted upon SSSs, it was of key importance to explore the NHS SSSs and the smoke-free legislation from the perspective of the clients; smokers that wished to stop, who were the essence of why the SSSs were created.

### **8.3 Ethical approval**

NHS research and development (R&D) ethical approval was needed; this was applied for through an online system entitled Integrated Research Application System (IRAS). In order to gain IRAS approval a detailed application form was completed, informing the ethics board of the procedure from the design of the interview materials, to participant recruitment, to analytical techniques which would be used. In addition to ethical approval, the NHS required that local site specific approval was also granted from the Primary Care Trust (PCT) where the research was to be conducted. NHS R&D approval was granted in July 2008, three months after the process had been initiated, site specific approval was granted a month later. It was requested that the information sheet and consent form were adapted to follow a standard NHS format, other than this no further changes were made to the study protocol. The ethics and R&D procedure took four months from start to finish.

Ethical approval for the study was also sought and gained from the University of Bath, Department of Psychology's Ethics Committee. No alterations were required to the study protocol.

### **8.4 Aims and objectives**

The aim of this research was to gather knowledge about the experience of attending a SSS, to understand the process of quitting smoking from a smoker's perspective and to explore the implications of the smoke-free legislation for those people who were trying to quit smoking. This was achieved via two objectives:

- Gaining an understanding of NHS SSSs from the perspective of SSS clients, recent ex-smokers and smokers in the process of quitting. Research explored

clients past experiences of the services and their attitudes towards and expectations of the SSSs

- Exploring the smoke-free legislation and smoking generally in more detail from the perspective of SSS clients, recent ex-smokers and smokers in the process of quitting. Clients understanding and experiences of the legislation were explored, focusing upon both the positive and negative aspects of the legislation, the implications of the legislation upon their behaviour and discussion of future hypothetical legislation

## **8.5 Cognitive dissonance theory**

A framework for the examination of client's views was provided using the theory of cognitive dissonance. A review of this theory was illustrated in Chapter 7.

In brief, cognitive dissonance theory described the resolution of a situation where an individual held two conflicting or inconsistent cognitions e.g. 'I am scared' and 'knowing there is nothing to be scared of', or when they acted in a way that was inconsistent with their underlying attitudes e.g. 'I believe in healthy living and treating my body well' and 'I smoke 30 cigarettes a day' (Festinger, 1957). This counter-attitudinal behaviour may have caused the individual to experience psychological tension or discomfort, resulting in dissonance; they were then motivated to alter either their attitudes or their counter-attitudinal behaviour to reduce or remove the dissonance, and achieve consonance (Festinger, 1957).

For a behaviour to be counter-attitudinal, it needed to be inconsistent with an attitude for example if an individual smoked, and simultaneously held the attitude that smoking was an unpleasant and dangerous habit, then the smoking would become a counter-attitudinal behaviour. Additionally Festinger (1957) highlighted four criteria that the behaviour in question needed to fulfil, these were:

- The inconsistent behaviour needed to be freely chosen
- There had to be some commitment to the behaviour

- Some aversive or undesired consequence needed to result from the behaviour
- The consequence needed to have been foreseen or foreseeable

With smoking behaviour these four criteria would be satisfied. It could be argued that as smoking is an addictive behaviour, the act of smoking is not freely chosen. However the initial cigarette that an individual smokes, is smoked to some extent by choice and thus in the case of the current research the counter-attitudinal behaviour was the individuals current and past smoking behaviour.

In Chapter 7 a structural framework of cognitive dissonance theory was presented, in which the six main constructs of cognitive dissonance were explored in detail (see Chapter 7). Through the process of thematic analysis the current data was analysed for evidence that the ex-smokers and smokers in the process of quitting in this sample had experienced the different aspects of cognitive dissonance theory. The six main constructs were counter-attitudinal behaviour, psychological inconsistency, self-preservation, cognitive dissonance, dissonance reduction and consonance. Additional issues not directly related to cognitive dissonance theory were also discussed with clients, thus the theory applied to some, but not all of the findings within this chapter.

## **8.6 Methods**

### **8.6.1 Research settings**

The research was conducted in one English SSS, which was located in the city of Stoneyshore. To maintain anonymity the SSS name and city have been changed.

Stoneyshore SSS was chosen as the research centre for a number of reasons. It was located within, and thus provided a SSS to, a fairly large city where there was a mix of both affluent and more deprived populations. Stoneyshore was also located within an acceptable travelling distance from the researcher's base, this



was important as multiple visits were needed to organise and carry out the research.

Stoneyshore was one of the services involved with the previously conducted staff interviews (see Chapter 6), therefore initial contact had already been made and the service manager had agreed to be involved with further research involving interviews with their clients. A description of Stoneyshore, the population's demographic statistics and an illustration of Stoneyshore SSS can be found in Chapter 6.

It had initially been proposed that client interviews would be conducted in Mackersbury, as well as Stoneyshore, as with the staff interviews. The manager of the Mackersbury SSS however failed to respond to the researcher's invitation to participate further in the research. This was despite multiple and varied attempts to make contact with and involve the Mackersbury SSS in this section of the research.

#### 8.6.2 Interview content

The interview content guide was developed through reviewing relevant smoking related literature and was influenced by the theory of cognitive dissonance (Festinger, 1957) (see Chapter 7). Issues were identified from the interviews with SSS staff (see Chapter 6), as well as from both the baseline and follow-up national surveys of English SSS managers (see Chapters 4 and 5).

The interview content guide consisted of 28 questions, almost all of these were open ended. These were split into four sections:

##### 8.6.2.1 General questions about your smoking

Clients were asked general questions about their smoking, for example, whether they still felt like a smoker, although one who was quitting, or whether they would describe themselves as an ex-smoker or non-smoker. They were asked about

their experiences of stopping smoking previously and their reasons for the current quit attempt were discussed.

#### 8.6.2.2 National Health Service stop smoking services

Questions were asked relating to their pre-existing expectations about attending the service and their experiences of the SSSs so far. Clients were asked to suggest changes to the service to improve the quitting process.

#### 8.6.2.3 Smoke-free legislation

Clients were asked about their opinion of smoke-free legislation before it was implemented, as well as their current attitudes towards it. They were asked whether they believed that non-smokers thought differently about smokers as a result of the smoke-free legislation.

#### 8.6.2.4 General smoking questions

Questions were asked relating to what they found most difficult about giving up smoking during this and previous quit attempts, and whether anything about the quit attempt had been easier than expected. Clients were also asked whether they would return to smoking if it were no longer harmful and whether smoking currently held any attraction for them.

Clients were also asked a number of demographic questions relating to age, marital status, education and employment status. A copy of the topic guide is included in the appendix, along with a copy of the clients consent form and information sheet (see Appendix 8.1, 8.2 and 8.3).

#### 8.6.3 Sample characteristics

As Table 8.1 illustrates 58 % (n=ten) of the sample were female. The average age was 43 years, 35 % (n=six) were living with their partner and a further 29 % (n=five) were married. Twenty-four percent (n=four) of the sample were divorced

Table 8.1: Sample characteristics

Name	Sex	Age	Marital status	Highest education level	Current employment status	Time since last cigarette
Abigail <sup>°</sup>	F	31-40	Married	Undergraduate degree	Employed	Unknown
Bella <sup>°</sup>	F	41-50	Living with partner	Masters or above	Employed	Unknown
Charlotte	F	41-50	Single / never been married	GCSE or equivalent	Employed	Unknown
Daisy	F	52-60	Divorced	Undergraduate degree	Out of work	1 week
Emily*	F	26-30	Living with partner	GCSE or equivalent	Employed	Still smoking
Faye	F	31-40	Living with partner	Less than secondary education	Unable to work	3 days
Georgina*	F	22-25	Living with partner	GCSE or equivalent	Out of work	3 days
Hazel	F	51-60	Married	Less than secondary school	Unable to work	3 days
Imogen	F	41-50	Divorced	GNVQ, A Levels or equivalent	Self-employed	Unknown
Jack	M	41-50	Married	Less than secondary school	Self-employed	1 week
Kevin	M	31-40	Divorced	GNVQ, A level or equivalent	Out of work	1 day
Lydia	F	51-60	Married	Less than secondary school	Housewife	3 weeks
Mark	M	71 +	Divorced	Less than secondary school	Retired	Unknown
Nick	M	61-70	Single / never been married	GCSE or equivalent	Retired	2 weeks
Oscar	M	22-25	Living with partner	GNVQ, A level or equivalent	Employed	Still smoking
Paul	M	61-70	Married	Less than secondary school	Retired	3 weeks
Shane	M	18-21	Living with partner	GNVQ, A level or equivalent	Employed	Still smoking

<sup>°</sup>Participant with a circle by their name = pilot interview

\*Participant with a star by their name = pregnant at time of interview

and 12 % (n=two) were single or had never been married. Over a third of the participants (35 %, n=six) had a less than secondary school education, meaning that they had left school without formal qualifications, 24 % (n=four) had a General Certificate of Secondary Education (GCSE) or equivalent, and a further 24 % (n=four) had a General National Vocational Qualification (GNVQ), Advanced Level (A Level) or equivalent. Only two people (12 %) had an undergraduate degree, and one had a masters level or above (six percent). It can be seen that 35 % (n=six) of participants were employed, 18 % (n=three) were out of work, and a further 18 % (n=three) were retired. A total of 12 % (n=two) were unable to work and another 12 % (n=two) were self-employed, the final participant (six percent) was a housewife. The average length of time that the participants had not smoked for was one week, however three of the sample were still smoking. For five of the participants who had recently stopped smoking, it was unknown how long they had been stopped for at the time of interview.

#### 8.6.4 Pilot interview

Two pilot interviews were conducted with recent ex-smokers, who were based at the University of Bath. This was to ensure that the questions were clear, that they were able to access the required information and that the demographic questions were suitable. No adaptations were suggested. Data collected in these interviews were included in the main analysis.

#### 8.6.5 Sample selection

There was much discussion between the researcher and the manager of the Stoneyshore SSS as to how interviews with the clients could practically be conducted. Stoneyshore SSS accessed and treated smokers in a variety of settings, including one to one booked appointments at the service head quarters, one to one drop in sessions throughout the community, weekly group meetings and home visits. It was decided that the researcher would spend a week in Stoneyshore in order to be able to interview a full variety of clients.

The researcher spent a day in Stoneyshore in advance of the designated week in order to organise the interviews. The service manager provided the researcher with a list of local SSS advisors, so that they could be called and asked whether the researcher could attend their sessions the following week and interview their clients. Core SSS advisors, who were based permanently within the service headquarters, were included in the discussions and the researcher was booked in to attend a number of their groups and drop in sessions. Finally telephone contact details from clients who had recently attended the service, and were happy to be contacted for research purposes, were provided for the researcher, who called a random selection of the clients to arrange interviews with them, however only one interview was arranged via this method.

#### 8.6.6 Collection of data

Data collection took place over a one week period in November 2008. During the week in Stoneyshore the researcher attended three drop in one to one sessions, three home visits, one group session and a number of one to one sessions at the service headquarters. All interviews were conducted during this time. The final interview locations were; six in a quiet office in the service headquarters, one in an empty room following a group cessation session, four home visits and six at a city centre drop in. All interviews were conducted on a one to one basis, except in two circumstances where there were two participants at a time. In these cases one was with a married couple who were both quitting and the other was with a mother and daughter who were stopping together.

In each interview the researcher introduced herself to the interviewee, gave them a copy of the participant information sheet, asked them to sign the consent form and explained that participation was confidential and voluntary, that they could withdraw at any time and that responses would be anonymous. All of the interviews were recorded. Although it was intended that all interviews would be conducted in quiet, interruption free locations, this was not always the case. Interviews were conducted in 'real life' situations, thus at times were interrupted by the participants children crying or playing in the room (n=two), dogs and cats being

present in the room (n=three) and, at the busy city centre drop in session, background noise from members of the public (n=six).

Through the researchers general observations a few things became apparent; much of the SSS advisors time was spent waiting for clients, for example, at a number of drop in sessions that were attended by the researcher only a small number of clients, and on one occasion none, turned up for support. It was also noted that one to one sessions were often cancelled at the last minute by the client, or they simply failed to attend their pre-booked appointment.

#### 8.6.7 Analysis

All interviews were recorded on a digital voice recorder and downloaded onto computer file. The interviews were transcribed by an independent transcriber.

Each participant was given a pseudonym; participant 1's pseudonym began with an A, participant 2's with a B, participant 3's with a C and so on, the names matched their sex. There was not a participant with a name beginning R, as the letter R in the transcriptions represented where the researcher was speaking.

Framework analysis (Ritchie and Spencer, 2002) was used to explore, understand and interpret the data. This method of qualitative analysis combined a number of interrelated stages, relying upon the researcher to use knowledge and creativity to determine meaning, conclusions and a logical 'story'. Framework analysis involved a systematic method of forming tables, and sorting through data following a number of key themes. The structured nature of the framework analysis meant that the method could be successfully documented and replicated (Ritchie and Spencer, 2002). The transcripts were analysed with the assistance of NVivo version 8. NVivo was a qualitative analysis package which was used as a tool to assist with the organisation and analysis of qualitative data. The process of framework analysis was described in detail in Chapter 6.

As previously mentioned, the data was also analysed in the context of cognitive dissonance theory. Examples of where participants demonstrated cognitive dissonance are present throughout the results.

## **8.7 Results**

The thematic analysis, using the framework approach, resulted in the emergence of 15 main themes, these were categorised under four headings Smoking, Experiences of stop smoking services, Smoke-free legislation and Smoking cessation. The themes were as follows and are discussed individually in relation to prior research and context. There was limited evidence relating to some of the themes, in these cases some cross referencing has occurred.

### Smoking

- Defining smoking status
- Reasons for stopping smoking

### Experiences of stop smoking services

- Expectations of stop smoking services
- Experiences of stop smoking services
- Changes to stop smoking services

### Smoke-free legislation

- Initial opinion of smoke-free legislation
- Current opinion of smoke-free legislation
- Impact of smoke-free legislation upon smoking behaviour

- Social attitudes, smoke-free legislation and smoking

### Smoking cessation

- Smoking cessation is 'easier' than expected
- Smoking cessation is 'harder' than expected
- 'If smoking weren't harmful...'
- 'If smoke-free legislation were reversed...'
- Current attraction of smoking
- Government's action to assist smokers

#### 8.7.1 Theme1: Defining smoking status

In 2008 Vangeli et al. conducted a cross sectional postal survey of over 500 smokers and ex-smokers, part of which evaluated how smokers and quitters perceived themselves and their smoking status. They found that even after a year of abstinence, many of their quitters had not 'taken on' full non-smoker identity. Their results suggested that 62 % called themselves non-smokers, 20 % described themselves as a smoker who was not smoking and 17 % identified themselves as a reluctant non-smoker (Vangeli et al., 2008). These findings were supported by Platt et al. (2009) whose longitudinal multi-level research, including in depth interviews, group discussions and observations, within six demographically contrasting areas suggested that recent ex-smokers often described themselves as 'quitters' or 'ex-smokers' as opposed to 'non-smokers'.

In the current research, participants were asked how they saw themselves in terms of smoking status. Participants varied in how long they had not smoked for, with an average of one week (range = zero - three weeks), this however appeared



to be unrelated to their perceived smoking status. Only one participant called themselves a smoker, where as the others defined themselves as non-smoker (n= four), ex-smoker (n= four) and smoker in the process of quitting (n= three).

Some of the participants felt it would take a period of time before they could happily call themselves an ex or non-smoker, as illustrated by Kevin

*K In the process of giving up...on the borderline*

*R How long do you think it would be before you could call yourself a non-smoker?*

*K I suppose around four or five months...I need that under my belt just to justify type thing (Kevin)*

However other participants who called themselves non-smokers suggested that this change in status was almost instantaneous. For example Faye had not smoked for three days, and when asked about her smoking status replied

*F Don't smoke, see in my frame of mind I don't smoke*

*R So you stopped on Monday, and now you're a non-smoker?*

*F That's it, non-smoker (Faye)*

In a similar way to Vangeli et al. (2008), the current findings suggested that often smokers in the process of quitting can hold onto their smoking status for a period of time, despite being abstinent, as illustrated by Kevin. They were often anxious to proclaim themselves as non-smokers, due to fear of relapse. This was not however the case for all participants, Faye, as well as others that were interviewed, stated that they saw themselves as a non-smoker from a very early stage of their quit attempt, thus highlighting the individualistic nature of the process of defining ones own smoking status.

Some of the participants demonstrated cognitive dissonance in relation to whether they saw themselves as a smoker or not, through their self-image or self-concept. This was a way of explaining how an individual saw themselves, if the individual believed that they were the type of person who did not smoke, however despite

this they still smoked, then their self-image or concept would be challenged and this could result in cognitive dissonance, as illustrated by Bella.

*I probably then didn't even think of myself as a smoker, which sounds a bit ridiculous, because obviously I was smoking* (Bella)

The end stage in the structural model of cognitive dissonance is consonance, where an individual reaches balance and returns to a state of equilibrium. They will have carried out a counter-attitudinal act, such as continuing to smoke despite being aware of the detrimental implications for health, experienced feelings of cognitive dissonance, thus in response to this carried out a form of dissonance reduction and in turn returned to a state of consonance.

This final stage of consonance was reached and discussed by a number of the participants. In this sample a return to consonance often occurred once the individual had stopped smoking as illustrated in the following extract from Faye and Georgina.

*F I'm glad we've stopped*

*G Definitely*

*F I'm just glad we've stopped* (Faye and Georgina)

The nature of the sample, i.e., people who were recent ex-smokers or smokers in the process of stopping smoking, resulted in consonance being achieved when the individual stopped smoking. However in the general smoking population, where not every smoker chooses to stop, consonance could be achieved by other means, for example by using trivialisation to deny the scientific evidence that smoking was damaging to health and thus being able to continue as a 'happy smoker'.

#### 8.7.2 Theme 2: Reasons for stopping smoking

A cross sectional national household survey recently conducted by Vangeli and West (2008), exploring reasons for wanting to stop and triggers for the actual quit

attempt, cited future health, current health and cost as the three main 'triggers' most commonly reported. These were similar to the 'reasons' for wanting to give up cited in previous research by Lader (2006) and McCaul et al. (2006).

In the current research smokers gave a variety of reasons for why they had decided to stop smoking. The most commonly cited reasons were health related, similar to the findings of Vangeli and West (2008), Lader (2006) and McCaul et al. (2006). Seven of the 17 interviewees discussed their general health as having an influence upon their reason to quit smoking. This perception of threat discussed was a construct which could result in cognitive dissonance, this may have occurred when the cognition that smoking was dangerous was inconsistent with the cognition that the individual was a smoker. In order to reduce the dissonance the individual may have decided to change their behaviour, i.e. stopping smoking, as Jack's explanation below illustrated.

*It was a FRIGHT for me, about three or four years ago I went to the doctors and I had this bronchitis and I couldn't get rid of it, and he used to say 'stop smoking, it'll go away' (Jack)*

Some of the participants discussed specific health situations which had scared them into quitting, whereas others talked more generally about the overall impact of smoking upon their health. Further to this four of the interviewees discussed pregnancy as one of their reasons for stopping smoking in a similar manner to Emily below.

*I mean, it's for the kids, it's for my baby, it's for me, an ah, I just wanna non-smoking life, I just wanna be healthy, I wan the baby ta be healthy, an my little girl as well (Emily)*

However not all participants experienced cognitive dissonance as a result of the health warnings that they experienced. In order to avoid cognitive dissonance a number of the interviewees used the method of trivialisation to remove the perceived health threat, ignoring the medical advice that they were given and

rejecting the scientific facts that they were presented with, as demonstrated by Kevin.

*I was aware of (health warnings) but, never took any notice of it () what they could come up with next you know what I mean? (Kevin)*

The two other most discussed reasons for giving up smoking were for financial reasons, as reported by Vangeli and West (2008) and that 'the time was right'. This was discussed in five interviews, where a specific trigger was not given, instead the participant described how they simply felt now was the time to quit, as summarised by Kevin.

*It's time to take it on board. And say 'yeah I'll stop, yeah I'll stop, yeah I'll stop, yeah I'll stop, yeah I'll stop' it comes to a stage where you got to say 'right, this is it' and you know today is this (Kevin)*

Other reasons provided included their dislike of smoking and early New Year resolutions. The smoke-free legislation was only cited twice as a reason for cessation, however this was discussed in later themes.

### 8.7.3 Theme 3: Expectations of stop smoking services

Roddy et al. (2006) used focus groups to explore barriers and motivators to gaining access to SSSs amongst deprived smokers in Nottingham. They examined smokers expectations of the services and concluded that some smokers felt victimised and marginalised by the government, health care services and SSSs, despite the fact that few of the participants had had contact with a SSS. Roddy and colleagues (2006) suggested that some smokers felt they would be bombarded with information that they were already aware of and preached to about the dangers of smoking. Some smokers also felt that if they relapsed, they would not be allowed to return to the service. Others were unaware that the SSSs even existed.

These conclusions were not replicated in the current findings. Half of those who discussed their initial opinion of the SSSs said that they did not have any prior expectations. There were an equal amount of positive (n=two) and negative (n=two) expectations among the other participants.

Those with negative expectations highlighted that as they had tried so many cessation techniques previously, they did not see what else the SSSs would be able to offer them. They were also concerned with what 'group therapy' would entail, as summarised by Daisy.

*I have to say that I tried EVERYTHING, I tried so much myself; I mean I tried you know, willpower and acupuncture and hypnosis, patches, I hadn't used the inhalator but I'd kind of tried everything and always I thought being part of a group was a bit naff you know? And I didn't want to do the old you know holding hands and talking together type thing* (Daisy)

Both participants who held negative prior expectations stated that the reality of the SSS was better than they had anticipated. Following the statement above, Daisy went on to say how she was surprised by how kind and supportive the group were and that she felt this really helped her to quit smoking. Daisy may have been demonstrating cognitive dissonance here, as she was aware that a stop smoking group was available and was said to help smokers quit, however she thought that it sounded a bit 'naff'. She however demonstrated a form of dissonance reduction by using social support provided by the group, conformed with others and joined the group, who then all quit together, she therefore reduced her dissonance and in addition was able to quit smoking.

In comparison with this, two of the interviewees held positive expectations of what a SSS was like and could offer. The participants in the current research seemed to hold less negative expectations than those in Roddy et al. (2006) sample. It must be considered however that the sample in the current research were attending a SSS at the time of interview, as opposed to the Roddy and colleagues (2006) sample, where many were not aware of and had not attended a SSS previously.

#### 8.7.4 Theme 4: Experiences of stop smoking services

May and colleagues (2009) conducted a questionnaire of a sample of ex-clients from one English SSS to measure client satisfaction of the service. They contacted 298 ex-clients and received a response from 34 % (n=100) and concluded that respondents were overwhelmingly satisfied with the service and the support that they had received. Almost all respondents (93 %, n=84) said that they would recommend the services to other smokers who wanted to stop.

The ex-smokers and smokers in the process of quitting discussed both positive and negative experiences of SSSs. There was more discussion of the positive aspects than the negative, in each case the critical points were in relation to the individual's general practitioner (GP) surgery. Abigail found that in a past quit attempt where she had accessed support from her GP surgery, the GP only offered her one form of nicotine replacement therapy (NRT), which she had used before and disliked, and could only offer her a support group that ran during the day whilst she was at work. Imogen and Jack had both made quit attempts in the past through their GP surgery's, they both reported having to see a different advisor every week, thus lacking consistency and subsequently support.

*I think with going to the doctors, I used to go in and see a nurse and one time I'd have a really nice nurse and she'd be chatty and the other one would, sort of look down on you, as though its your fault you smoked anyway (Imogen)*

It could be seen that Imogen was demonstrating a form of dissonance avoidance as well as a form of dissonance reduction. She talked about how the nurse looked down on her thus blaming her for smoking. Imogen suggested that she did not like how this felt as in order for self-preservation to occur, thus avoid dissonance, she needed to reduce her level of self-blame, however the nurse would have increased her level of self-blame instead. Imogen also provided an example of denial of responsibility by saying '(the nurses) look down on you as though it's your fault you smoked anyway' this could imply that Imogen believed that it was not her fault that she smoked, thus denying responsibility for her behaviour and in turn reducing the dissonance experienced.

In comparison with this eight interviewees, including two of the three who mentioned a negative experience, discussed their positive past experiences of the SSSs. The quotes below sum up the extent of satisfaction felt by those attending the SSS.

*When I went to the group it was so, it was so nice, I was really surprised. That it meant a lot to me to be able to communicate with other people who were doing the same thing* (Daisy)

*She is brilliant and you've got the support to look forward to each week...here it's a personal service* (Jack)

*Everything they've given me is, the options is very explanatory and it's very good...so far so good...I've found it very easy and they've been very helpful* (Kevin)

*Brilliant. We couldn't have done it without them. No way* (Paul)

It seemed that the understanding shown and support provided by the SSS was highly valued. It was repeatedly described as a personal service that was adapted to the individual.

#### 8.7.5 Theme 5: Changes to stop smoking services

A small amount of research has explored smoker's opinions about changes and improvements to SSSs. Wiltshire et al. (2001) conducted semi-structured interviews with 100 smokers from two deprived areas in Edinburgh and concluded that these smokers felt that there was not enough support available to them. Comparisons were made to other drug addictions, stating that if they were addicted to 'harder' drugs such as heroin, they would get support to come off the heroin, it was felt by some of the smokers that this level of help was not available to them. Similarly some of the smokers that were interviewed by Roddy et al. (2006) implied that alternative methods of support were needed. These included rewarding smokers for giving up, for example by giving them vouchers, making the

support more personalised or taking smokers to see patients in hospital who were suffering from smoking related illnesses.

Participants in the current research however did not suggest such changes. A number of interviewees, when asked what they would change, responded that they did not feel that any changes were needed.

*R Do you think there's anything that could be improved?*

*D I don't think so no. I can't think of anything that I've thought I wish that didn't happen or anything (Daisy)*

Two suggestions were made for possible improvements to the service. Imogen felt that NRT was removed at the crucial point, a number of months into the quit. She was aware that this could be bought over the counter, however highlighted the increased cost of this method of acquirement. She felt that as using NRT was healthier than smoking, it should be continuously prescribed by health care professionals (HCPs). The other area for change was discussed by Abigail who found it difficult to access help, stating that limited NRT products were offered, as well as support groups being provided at inconvenient times during office hours.

It was interesting that previous research which highlighted many changes to SSSs were suggested by smokers who often had limited, if any, experience of SSSs. It was promising however that in the current research, where all participants were accessing a SSS at the time of interview, there were few suggested changes or improvements.

Participants in the current research did not provide evidence to suggest that they experienced cognitive dissonance when thinking or talking about possible changes to SSSs. Cognitive dissonance theory was not able to be used as a framework for analysis for this theme within the current research.



#### 8.7.6 Theme 6: Initial opinion of smoke-free legislation

When the Health Act (2006) was passed and it was announced that England would go smoke-free on July 1<sup>st</sup> 2007, there was a mixed response among the general public. A qualitative study of the impact of smoke-free legislation in two parts of England, conducted by Platt et al. (2009), highlighted the initial scepticism and negativity expressed by certain groups within society, such as younger smokers, as well as older established smokers. Some members of the public did not believe the research on the effects of second hand smoke (SHS), and thus did not understand the need for the smoke-free legislation (Platt et al., 2009). Some of these smokers, who held negative opinions about the forthcoming legislation, also felt that it would not have an impact upon them, and others felt that they would be able to avoid or ignore the new restrictions (Platt et al., 2009). This was not the case with all smokers however, as many were positive and optimistic about the new legislation, seeing it as a way to help them to cut down or quit (Platt et al., 2009).

The current research, to some extent, supported the findings of Platt and colleagues (2009) as the ex-smokers and smokers in the process of quitting demonstrated mixed initial opinions towards the smoke-free legislation. Participants were asked how they felt about the legislation before it was implemented. Only one respondent was initially 'neither positive nor negative' towards the legislation. Respondents appeared to initially feel either one way or the other about the legislation.

Those who responded in a positive manner commented upon aspects such as it creating a cleaner atmosphere inside pubs and restaurants, that it would be healthier for workers, especially within the hospitality industry and that they understood the argument of SHS, so it was fairer on non-smokers. Many of the respondents stated that although they were a smoker themselves, they disliked being in smoky environments, the legislation was therefore positive, as summarised by Abigail.

*I thought it was a really good idea...because it was just very unpleasant to be in, even though I was a smoker, I didn't like sitting in smoky rooms because of your hair, your clothes, watering eyes, all of that kind of stuff, I didn't like sitting in rooms that were full of smoke* (Abigail)

In comparison, seven of the interviewees said that their initial reaction to the smoke-free legislation was negative, highlighting that they were concerned about having to smoke outside on wet and windy nights and that people may look down on them whilst they were smoking outside. This is important as such experiences can cause cognitive dissonance. Oscar talked about how he and his friends panicked that they would not be able to smoke, and thought that everyone would stay at home instead of going to the pub. Faye described it as rotten, saying that she felt persecuted. The quote from Kevin below was similar to many of the respondents.

*Didn't particularly like it. Didn't like the idea, especially because I was an active drinker at the time ... And the thought of standing outside in the rain doesn't bode well with anybody I don't think* (Kevin)

Overall there was an equal split between participants who were positive about the legislation (n=seven) and participants who were not (n=seven).

#### 8.7.7 Theme 7: Current opinion of smoke-free legislation

Public polls suggested that there was a small proportion of society who objected to the smoke-free legislation (Office for National Statistics (ONS), 2008b). However despite this opposition, the new law was implemented smoothly and successfully, with less animosity than expected. ONS data from the 2007 Omnibus Survey concluded that 61 % of respondents 'strongly agreed' and 19 % 'agreed' with the legislation, only 14 % 'disagreed' and six percent 'strongly disagreed' with the legislation (ONS, 2008b). Hilton et al. (2008) conducted in-depth interviews with bar staff to explore their perceptions of patron's behaviour following the smoke-free legislation in Scotland and concluded that patrons readily accepted and complied with the new law.

Fowkes et al. (2008) interviewed smokers following the introduction of the Scottish smoke-free legislation. They found that over 70 %, of the 474 smokers who were asked, considered the smoke-free legislation to be positive. However the researchers also suggested that smokers from the more deprived areas of Scotland were less positive about the legislation than those from more affluent areas. Donnelly and Whittle (2008) also conducted an evaluation of the Scottish smoke-free legislation and found that 84 % of 18-24 year olds felt that the legislation was 'something to be proud of' and 73 % of the population thought the legislation was 'successful' or 'very successful'. It could be seen that there was a shift in opinion towards the smoke-free legislation from when it was initially announced to a year post implementation. Platt et al. (2009) concluded that many participants shifted their attitude towards the new law, from broadly negative pre-legislation to more positive post-legislation, they also suggested that those who already expressed positive attitudes towards the legislation, increased their positive beliefs further following the legislations implementation.

These findings were echoed in the current research. Participant's initial opinions of smoke-free legislation were equally split between positive and negative attitudes. When asked how they currently felt about the legislation, only two participants expressed negative opinion and those illustrating a positive attitude had increased in number. Three of the respondents showed a mixed attitude, suggesting that overall they were 'neither positive nor negative' towards the legislation.

What was of most interest within this theme was the reaction of the participants whose attitudes changed between pro and post legislation. Kevin, for example had initially been anti the legislation, however his attitude changed once he realised it wasn't as bad as he had expected it to be.

*R So your attitude changed quite a lot then from before it came in?*

*K Yes. In a very positive way. It didn't take long either. I was expecting months and months and months but it didn't take long, maybe a week or so, and I thoroughly agree with it now (Kevin)*

This extract illustrated not only the extent of Kevin's attitude change, but also the speed in which the change occurred. Paul also experienced a change in opinion towards the legislation, this change appeared to take slightly more time, however the outcome, of a highly positive attitude, was similar to Kevin's.

*We got used to it after a month or so didn't we?...and we used to go outside, after the coffee, we'd go outside and have a fag...but now we think it's the best thing that's happened...because now you can go into a café knowing that no-ones going to be fagging it...sit down and have a coffee and have something to eat and taste it without people coughing and spluttering (Paul)*

These excerpts from interviews with Kevin and Paul provided evidence that some of the participants may have been experiencing cognitive dissonance as a result of the smoke-free legislation. Their opinions towards the legislation changed from before to after its implementation, this may have been due to an increased level of dissonance that was experienced as social attitudes and public opinion towards smoking in public places changed, as well as their own personal experiences of the legislation. The attitude change that they experienced may have occurred in order to reduce the level of cognitive dissonance that they were feeling. Attitude change can lead to both the creation of cognitive dissonance as well as leading to its resolve. A change in attitude can make a consistent behaviour become a counter-attitudinal behaviour, as well as an attitude change in the other direction returning the individual to a state of consistency. It could be seen that both Paul and Kevin explained how their attitude change allowed them to move from feeling dissonance in relation to having to smoke outside, to changing their opinion about the reason for the smoke-free legislation and understanding its need.

#### 8.7.8 Theme 8: Impact of smoke-free legislation on smoking behaviour

Smoke-free legislation was primarily aimed at reducing exposure to SHS. However, it can also facilitate quit attempts (Hackshaw et al., 2010) and make smoking less socially acceptable. It was anticipated that the legislation would impact upon smoking behaviour, and research supported this hypothesis. Information Centre (IC) data in England showed that there was a 22 % increase in

the number of people successfully quitting, at four weeks, and a 23 % increase in the number of people setting a quit date through the SSSs in 2007/8 compared with the same period in 2006/7 (Department of Health, 2008a). Platt et al. (2009) suggested that many smokers, in particularly more affluent smokers expected the legislation to have a positive impact upon their smoking behaviour, helping them to cut down or quit altogether. They found however that other smokers, especially those that were older and less affluent, felt that the legislation had not had an impact upon their smoking behaviour (Platt et al., 2009).

Following the implementation of the Scottish smoke-free legislation, calls to the smoking cessation helpline increased three fold (Howie et al., 2006) and there was a substantial rise in the demand for help to quit smoking (Donnelly and Whittle, 2008). Further changes to smoking behaviour in Scotland were noted by Fowkes et al. (2008) who found that in the year that the legislation was introduced in Scotland, there was a change in the pattern of quitting with an increased proportion of smokers quitting in the three months prior to the legislations introduction.

Analysis from the current research suggested that the smoke-free legislation did have an impact upon smoker's behaviour, in particular the level of smoking and quitting behaviour.

Six of the recent ex-smokers and smokers in the process of quitting discussed how the smoke-free legislation had made them cut down the amount of cigarettes that they smoked. The most commonly cited reason for this was it being cold outside, so they did not want to stay outside for very long. This may have led to the creation of cognitive dissonance. One participant said that he used to smoke half of a cigarette and then go back inside. Another reason suggested for cutting down was by a taxi driver who said that she could no longer smoke inside the cab as she normally would, and that she could not be bothered to get out and smoke whilst waiting for a job.

In the reverse of this, one man said that he actually smoked more because of the legislation, he said that if he went outside to smoke, he would chain smoke a few

to make the trip outside worthwhile. This compensatory behaviour may have reduced the chances of cognitive dissonance developing. One participant said that although she was smoking less, she felt that she was drinking more alcohol as a substitute.

*I think I smoked less if I went out, I smoked less and drank more because its cold outside and stay indoors, yeah, I smoked less and that, but then cos you got a drink in your hand and so your doing something and tha with your hand, instead of having a fag in your hand (Emily)*

Two of the participants said that the legislation had been part of the reason that they decided to stop smoking. Abigail said that when her workplace went smoke-free a month before the nationwide legislation was implemented, she decided that it was time for her to stop smoking to make her work situation easier. Jack also stated that the legislation was involved in his decision to quit.

*Part of the reason towards it, knowing that I couldn't smoke in the premises gave me an extra incentive as well, it was positive yes yes (Jack)*

More often participants stated that the legislation had made it easier to remain abstinent, and therefore had made their quit attempts easier. Some said that they found it supportive that they could not light a cigarette and start smoking where they were sitting, and that it became a conscious decision to go outside and smoke.

*Well, yeah, yeah, yeah, it will help me quit cos that's the main reason why I've actually cut down, I haven't been able to go into a pub and sit down, you go in get your pint and go outside in the freezing cold and its like your outside and its like I don't wanna go outside. I can't be arsed to go out for another fag (Shane)*

They also suggested that without being surrounded by other people that were smoking, they were less tempted to return to smoking.

It was interesting that despite many of the ex-smokers and smokers in the process of quitting talking about how the legislation had impacted upon their smoking behaviour, nine of them also made comments about how it had had no impact upon their smoking behaviour. They talked about how pubs had been accommodating and put heaters in the seating areas outside for the smokers, others said that there were more people outside smoking than sitting inside, so it became quite sociable to be outside. This may have reduced the cognitive dissonance experienced by the smokers, as having an allocated, comfortable place to smoke in may have reduced the feeling that they were carrying out a counter-attitudinal behaviour by smoking. Here Oscar explained that he didn't mind going outside, and it didn't impact upon his smoking behaviour.

*I mean sometimes its nice just to go and get some like, go out into the air and I mean like you said they've got heaters everywhere and stuff so you know, I think I panicked about it at first, when it first come out but yeah it's not too bad* (Oscar)

This may suggest that the publican reduced Oscar's cognitive dissonance by providing a place to smoke, so that Oscar did not have to reduce it himself in the form of changing his smoking behaviour.

#### 8.7.9 Theme 9: Social attitudes, smoke-free legislation and smoking

Following the introduction of the smoke-free legislation, it was anticipated by some that there would be a change in general attitudes towards smoking.

Hilton et al. (2008) explored patron's behaviour in Scottish bars following the introduction of the Scottish smoke-free legislation. The study found that the legislation had been widely accepted and welcomed by bar workers as it had greatly improved their workplace conditions and made it a healthier place to be. Both non-smoking and smoking bar staff reported that they enjoyed working in a smoke-free environment. Hilton and colleagues additionally concluded that, in their sample, patrons had relatively easily accepted and complied with the legislation. The Department of Health's one year report of the English smoke-free legislation found a similar situation. The public opinion polls found that 76 % of the general

public supported the smoke-free law and 70 % of people believed that creating smoke-free environments had resulted in positive implications for the health of people in England (Department of Health, 2008a). Similarly previous research suggested that members of the public, including both smokers and non-smokers, rapidly adapted to the legislation, acknowledging the benefits and often showing little sympathy for the arguments against it, such as having to smoke outside in the rain (Platt et al., 2009).

Hilton et al. (2008) found that some smokers experienced feelings of exclusion and it was suggested that smokers were set apart from mainstream non-smoking society. They described one smoker who referred to smokers, including himself, as 'the unclean'. It was also commented upon that older, more frail smokers were unable to easily leave the bar to socialise with other smokers and were therefore being excluded from their social network (Hilton et al., 2008). Platt et al. (2009) acknowledged similar attitude changes in England, where smokers felt uncomfortable and found it difficult to smoke outside, thus on occasion leading to exclusion, distress and resentment, in particular amongst those who were of an older age. This may have resulted in the development of cognitive dissonance.

A further problematic aspect of the legislation was that it had increased the visibility of smokers in doorways and outside of premises which raised some concerns that this would be detrimental to the image of the bars and local area (Hilton et al., 2008).

Platt and colleagues research (2009) further suggested that there was a social stigmatisation attached to smoking. They highlighted that some smokers felt discomfort whilst smoking outside and did not wish to be identified as a smoker. Some smokers talked about feeling embarrassed and awkward, and that going outside to smoke felt degrading. To overcome this, smokers often cut down how much they socialised, how much they smoked whilst out socialising or smoked when walking between venues, as opposed to leaving a bar to go outside for a cigarette. Participants were therefore reducing their exposure to situations which may have caused cognitive dissonance. Participants in Platt's research discussed situations where members of the public had made comments towards them in the



street, in public parks and other locations where smoking was allowed, telling them it was a disgusting habit and that they should quit (Platt et al., 2009). Platt et al. (2009) concluded that smoking had become less socially acceptable and that this attitude shift had largely been encouraged and exacerbated by the smoke-free legislation.

As with previous research, the current research explored society's attitudes to smoke-free legislation and smoking generally. The recent ex-smokers and smokers in the process of quitting largely confirmed the findings of previously mentioned research with similar issues, opinions and experiences being focused upon. There was much evidence of cognitive dissonance being experienced by the sample throughout the interviews, in particular in relation to 'social attitudes, smoke-free legislation and smoking' some of these examples are highlighted below.

For the purpose of discussion, this theme has been split into two sub-themes. Initially participants talked about their personal attitudes towards smoking and smokers in light of the smoke-free legislation, as well as how smoking in public had made them feel.

It became apparent that many of the recent ex-smokers and smokers in the process of quitting disliked smoking, found the smell unpleasant, did not think it looked very attractive and did not enjoy spending time in a smoky environment. Many of them seemed to be positive about the legislation as they felt it would improve the environment in public places. These comments were not restricted to those who had already stopped smoking. An example of this was seen below with Kevin who was thinking about stopping smoking.

*It's no good, and it's nasty. I don't particularly like it anymore...I'm at the stage now where I dislike smoking a lot. I'm doing it because it's a habit* (Kevin)

One participant, Daisy, stated that smoker's did not like smoking or enjoy smoking.

*Every single person that I've met who's a smoker wishes they hadn't started. That's all I can tell you, not a single person that I've ever had that conversation with has said 'oh I don't mind, I'm quite glad I started' (Daisy)*

The two previous quotes from Kevin and Daisy illustrated how the participants may have been experiencing cognitive dissonance through a lack of self-consistency. Both Kevin and Daisy talked about how unpleasant smoking was, that it was not something that they liked to do, however they had both been smokers. As a current smoker and someone who had recently quit, their dissonance may have been initiated by this lack of self-consistency that may have led them to think about stopping smoking, in order to reduce the dissonance.

Despite showing distain towards smoking, the majority of interviewees did not express any negative attitudes towards actual smokers. Some of them implied that they felt sorry for people who smoked and often explained that this was because they knew how easy it was to initiate the behaviour and how difficult it was to stop. This was summarised by Charlotte who had quit smoking for a period of time, before returning to her addiction.

*When I wasn't smoking and I saw other people smoking around me, I just thought shame, you should give it up really but now that I'm back to it, it's easy to see it, it's really hard to give up (Charlotte)*

However, it appeared that some recent ex-smokers quickly took an anti-smoking stance and talked in a negative manner about smokers. This provided evidence of how smokers could change their attitudes about smoking once they stopped smoking, this resulted in a reduction in the cognitive dissonance that they experienced. For example when Jack was smoking he did not mind seeing other people outside premises smoking, however once he stopped smoking he altered his attitude to fit his non-smoking behaviour, seeing this as an 'annoying' thing that smokers do.

*I'd say the annoying part is seeing everybody outside smoking there and you've got to walk through to get into the premises...all by the front door and that really*

*annoys me. I mean they're not using the ashtrays neither, they're just putting it out on the floor* (Jack)

There was considerable agreement with previous research in relation to how the current participants felt when smoking in public. Eight of the interviewees talked about being embarrassed to smoke outside, how they felt judged and that they could see people rolling their eyes at them, or looking down upon them. Here Georgina talked about how smoking in public made her feel.

*You do feel as if like, you stand out in a crowd like almost, it's a weird feeling, but you feel, I don't know about anybody else but you feel like dirty and stinky and just, ohhh, look at me outside* (Georgina)

In a similar way to Georgina, Paul discussed feeling uncomfortable when he smoked in public and how he tried to avoid this negative feeling. He provided evidence of how he reduced cognitive dissonance through conforming to other smokers and thus receiving social support. Paul explained how he used to only smoke around smokers in the past as it made him feel more comfortable about his own smoking behaviour.

*P We'd go somewhere where someone else was smoking, like on a seat. You know for instance out by the bus stops the seats isn't it? And I look around to see who was smoking and I'd go and sit next to them*

*R Why is that?*

*P I don't know. Because then I know he was the same as me like, on the fags*  
(Paul)

He continued to explain that if he was smoking and someone who was not smoking came and sat near him he would, in reverse of the previous behaviour, put the cigarette out thus again reducing his cognitive dissonance.

*I was sat down and a lady come up with her bags I'd put the fag out and I'd go somewhere else later on* (Paul)

However in contrast to this, three of the participants said that they had never noticed anybody talking about them or responding negatively towards them whilst they smoked outside. One explanation provided for this by Faye suggested that smokers sometimes ignored how others reacted to their smoking.

*Sod our health, sod everybody else's health, yeah I think its more, it's a selfish habit, very selfish, because you're so hooked on it, you don't see what's around, you're just focused on having that fag in your hand* (Faye)

Faye may have been demonstrating a method of dissonance reduction through denial of responsibility for her smoking behaviour, she discussed that it was a selfish 'habit', however it was not her being selfish, but the 'habit' that she was hooked on. She put the responsibility onto the addiction, and thus not taking personal responsibility.

There was much discussion about how society in general had responded to the smoke-free legislation and smoking on the whole. In particular, participants discussed societal opinions towards smoking and smokers, societal opinion of smoke-free legislation and how society had adapted to the smoke-free legislation.

Two main points were repeatedly raised. The first was that there had been a change in society's attitude towards smoking and the second that smokers were often seen in a negative light by the general public.

Many of the participants talked about a change in societal attitudes towards smoking in recent years. Many of them reflected back to when they used to smoke in the past when smoking was generally accepted, in comparison with their more recent smoking experiences where they noticed how anti-social smoking had become. Some talked about how smoker's attitudes had changed and that they no-longer expected to be able to smoke in the company of non-smokers. Others talked about how smoking was now a thing of the past. As Abigail highlighted, these changes in attitude may not necessarily have been due to the smoke-free legislation, however many of the participants attributed it to this.

*Whether it was because of the legislation or whether it was changing anyway, certainly in the last year that I smoked, you could see peoples attitudes were different I think...in that it was much more frowned upon in a social situation*  
(Abigail)

A number of the participants removed the blame from themselves, thus avoiding experiencing cognitive dissonance by explaining that when they began smoking, the dangers to health were not well established and publicised, and that 'everyone did it'. They also demonstrated act rationalisation as a method of avoiding experiencing cognitive dissonance. Here Daisy used act rationalisation to justify why she started smoking, thus the more convincing she was to herself, the less cognitive dissonance she would have experienced.

*I think probably as public awareness of the anti-social nature of smoking has increased, you know when it was generally accepted when I was a teenager and I started smoking, it was generally accepted, everybody smoked. So it wasn't the same* (Daisy)

In line with previous research, interviewees often told of negative responses they had received from the public towards their smoking or how the public generally responded to smokers. The interviewees talked about how people who didn't smoke probably saw it as a 'dirty filthy habit' and how they felt that people looked down upon others who smoked. One participant, Daisy, explained how in the past people either were or were not smokers and this was accepted by the public, however that had changed.

*It was much more acceptable, 'oh you're a smoker, I'm not, but that's ok, you're a smoker' and now it's, 'Ooh, there's a smoker'* (Daisy)

Three of the respondents talked about what they felt societal opinions of the smoke-free legislation were. They all agreed that the general public were glad that smokers had to go outside to smoke, suggesting they would not have to 'put up' with smoking anymore. Daisy expressed her opinion, as well as explaining what she had heard others saying about the situation.

*I think the non-smokers are just very relieved that they don't have to breathe in somebody else's smoke anymore. That's the impression I get from what I hear generally in conversation. You know I think they're just very glad that they can now go into a pub, especially pubs, and restaurants and public places and they know that it's going to be smoke-free* (Daisy)

There was a feeling that society in general was positive about the smoke-free legislation and that this had led to a change in attitude towards smoking being anti-social and smokers being to blame for their behaviour. Change in societal attitudes towards smoking in this way, could in turn increase levels of cognitive dissonance experienced by smokers. This could result in some smokers making a quit attempt, therefore reducing the degree of cognitive dissonance experienced.

Previous research had implied that, on the whole, the general public adapted well to smoke-free legislation and this was reflected in the current research. In a number of cases interviewees talked about how they, and others they knew, had almost forgotten what pubs were like before the legislation was introduced. They suggested that it was only when travelling abroad to countries without a comprehensive smoke-free policy that they realised how quickly it had become the norm in England for smokers to go outside. Interestingly, those who were still smoking when they visited these countries were quite happy to go back to smoking inside, despite finding it odd that they were allowed to do so.

#### 8.7.10 Theme 10: Smoking cessation 'easier' than expected

A significant number of the interviewees mentioned that stopping smoking had been easier than expected. A range of explanations were given for why they thought this had been the case.

One of the most common reasons given was due to the medication or NRT that the individual had used. Different types of NRT were mentioned, as well as some discussion about bupropion and its power to make a smoker feel that they no longer needed to smoke.

A number of interviewees attributed part of their relative ease of cessation to the smoke-free legislation. For example Abigail discussed how she had expected socialising to be a hurdle when she first stopped smoking, as much of her social network smoked, however she found that lack of smokers inside pubs and restaurants reduced her urges to smoke when socialising. Similarly Jack, a taxi driver, found that not being allowed to smoke in his car helped him with maintaining abstinence, as there was a lack, or reduction, of cues to smoke.

*I found it a lot easier than I expected...you'll be sat in the car waiting for jobs, go outside, have a cigarette cause you can't smoke in the cab and I was worried about that part but I've had no urges, I've just been sat there listening to the radio, watching what's been going on around, it surprised me...a lot easier than I expected* (Jack)

It was thought that the level of self-esteem an individual possessed could impact upon the amount of cognitive dissonance they experienced. There was debate as to whether more self-esteem led to more or less cognitive dissonance. Participants gave examples of both positive and negative self-esteem. As the quote above illustrated Jack demonstrated confidence in his ability to quit smoking, as did Paul in his ability not to return to smoking, suggesting that high self-esteem, a method of self-preservation, could reduce the level of dissonance experienced.

*It doesn't bother me, it's at tea time, when I've had a meal, you know and relax, when I have a chewing gum straight away* (Paul)

Others talked about the social support they had received and how this had reduced some of the difficulty of smoking cessation. They discussed how many of their friends had recently stopped or that those who were still smoking would leave the group to smoke, and this they found supportive. This was an illustration of a way to reduce cognitive dissonance by maximising social support and conforming with others. The concept that social support aided smoking cessation had previously been demonstrated. Platt et al. (2009) found evidence of this in their longitudinal qualitative evaluation of smoke-free legislation in England. They found

that when friends, workmates and significant others stopped smoking at the same time it was seen as supportive.

Paul and Lydia, a married couple, were quitting together. Here Paul explained how they would talk about a situation that could potentially lead them back to smoking, and encourage each other to remain abstinent.

*What we try to do is if anything stressful is coming up, say we get a bill or something we sit down and have a little chat like and say 'oh yeah, sod it' like*  
(Paul)

Other suggestions for why smoking cessation had been easier than expected included the pressure from society to stop, visible improvements to health, looks and smell, the motivation of financial savings and the importance of stopping during pregnancy.

#### 8.7.11 Theme 11: Smoking cessation 'harder' than expected

For many people giving up smoking is a very difficult thing to achieve. Wiltshire et al. (2003) conducted interviews with 100 smokers from two disadvantaged communities in Scotland and found that barriers to giving up smoking and reasons for relapse included using smoking to deal with stressful situations and the 'culture of smoking' that they were surrounded by. Vangeli et al. (2008) suggested that some smokers identified experiencing a feeling of loss when they stopped smoking. They also found that many ex-smokers still longed for or experienced a craving for a cigarette for up to and sometimes longer than two years after giving up smoking (Vangeli et al., 2008).

In comparison with the theme 'smoking cessation 'easier' than expected', a number of interviewees discussed how they had found smoking cessation harder than they had expected it to be. Many tried to explain why they had found this, and the most common explanations were related to the physical consequences of giving up.



Recent ex-smokers and smokers in the process of quitting discussed how they still craved cigarettes. Some were worried about potential cravings and did not know whether their pharmacotherapy was powerful enough to overcome these cravings. Others talked about how the smell of a cigarette still made them crave one. Other physical factors that made smoking cessation harder than expected included feelings of constipation when not having a cigarette, putting on weight, feeling very tired and coughing up unpleasant mucus.

Although some participants had found not smoking in social situations easier than expected, others had found similar situations to be problematic. They explained how situations which often focused around smoking, such as going to a smoking friends house for coffee, became very difficult. Bella talked about the ease of falling back into smoking through certain social situations and other cues to smoke.

*It was always being in a pub, with a drink, or socialising, or at a party with a drink and having that sort of almost physical memory of almost having a cigarette in your hand* (Bella)

In a similar way to the participants in Vangeli et al. (2008) research, Daisy talked about the psychological addiction being so powerful, and that coming to terms with being a non-smoker made smoking cessation exceedingly difficult.

*It's just getting your head round that you can combat the addiction. The addiction is very strong and you know it's so strong that intelligent people are ruining their health, and their lives knowingly. I mean you know, I'm an intelligent person, you know all the reasons why not to but you still do it so that's very powerful* (Daisy)

Daisy demonstrated how lack of self-consistency and a challenge towards self-identity could increase cognitive dissonance. Daisy explained how she saw herself as an intelligent person, who knew the risks and therefore should not smoke, however she still smoked. This went against how she saw herself and suggested that her behaviour was inconsistent with her attitudes, thus leading to cognitive

dissonance. This could in turn lead to a quit attempt, as Daisy demonstrated, in order to remove this inconsistency and resulting dissonance.

Other reasons provided for why smoking cessation was harder than expected included the fear of failing, the problems related to altering work routines to avoid smoking, such as removing smoking breaks throughout the day and issues relating to medication, such as adverse effects and dislike for particular products.

#### 8.7.12 Theme 12: 'If smoking weren't harmful...'

Health reasons, as previously illustrated, were often provided as an explanation for wanting to stop smoking. Thus participants were asked whether they would return to smoking if smoking were not harmful. Just one participant, Bella, stated that she would return to smoking, however she mentioned the price of cigarettes, saying that she would return if it was cheaper to buy cigarettes. Five respondents said that they would not return to smoking and five said that they would consider returning to smoking.

Those who said they would not return to smoking stated that even if it was not harmful, other factors such as the unattractive smell, high cost and general dislike for smoking would stop them returning. Oscar's response was representative of this.

*I probably would still give up just for the fact of the smell and the cost of it really*  
(Oscar)

Of the five interviewees who said that they would consider returning to smoking, almost all discussed the pros and cons of the behaviour. For example Paul discussed that he had more money, he could sit in social situations without being surrounded by smoke and that he felt healthier since he had stopped however he also stated that he would still like to smoke. He was subsequently talking about the discomfort and dissonance caused when he battled between being a recent ex-smoker, but still wanting to have a cigarette, thus demonstrating cognitive dissonance.

*That's a tough question that is. I don't know. Because I think we're still...no. But it's a good question because at this minute we've done pretty well at the moment...but there's always that little nag in the back of your head where "cor I could do with a fag" but I mean that's a fleeting glance... but its only going to take one cigarette...I mean if you think "oh I'm going to have, I'll just have one puff" and you think to yourself "well its not going to do me any harm" go and buy 20 (Paul)*

Another participant, Daisy, expressed cognitive dissonance in relation to the question of returning to smoking if it was not harmful, as well as questioning her self-consistency.

*It's a hard question and I don't know. I guess, I mean if you knew it wasn't going to harm your health maybe but then why I don't know. It's a strange habit isn't it, why do we do it anyway? (Daisy)*

Although many smokers cited health as their primary reason for wishing to stop smoking, there were often other factors involved which would still lead them to cessation and prevent them from returning to smoking if the harmful elements were eliminated. The current findings differ to some extent from those of Vangeli et al. (2008) who found that in their sample of recent ex-smokers, over 40 % would return to smoking if it was not harmful.

#### 8.7.13 Theme 13: 'If smoke-free legislation was reversed...'

Some interviewees were asked 'If the smoke-free legislation were reversed, would you return to smoking?' Of the seven participants who were asked this question, there was a unanimous no. In terms of public health this was a positive and perhaps surprising response. Six of the seven respondents gave a straight forward 'no' or 'definitely not' response to this question. Oscar discussed this in a little more detail, however he resulted in the same conclusion.

*No. Not now no...if they said you're allowed to smoke inside now I don't think that would make a difference. I don't, I wouldn't go back to smoking, but it would make*

*it harder if I'm in a room and people are smoking around me. Obviously that makes it harder but I don't think, hopefully, I wouldn't go back to it* (Oscar)

This reinforced the theme 'Impact of smoke-free legislation upon smoking behaviour' and suggested that, whether consciously or not, the smoke-free legislation had a considerable impact upon many smokers smoking attitude and behaviour.

In the current sample the participants did not provide evidence of cognitive dissonance in relation to whether they would return to smoking if the smoke-free legislation was reversed. Cognitive dissonance could not be used as a framework for analysis for this theme.

#### 8.7.14 Theme 14: Current attraction to smoking

Vangeli and colleagues (2008) found that of their sample of abstinent ex-smokers, 28 % said that smoking still held an attraction to them. Platt et al. (2009) found that although all of those who had quit had the intention to remain abstinent, many still claimed that smoking still held some form of attraction, and it was rare for them to say they no longer missed smoking.

In the current research many of the interviewees were asked whether they had any current attraction to smoking. Of these participants one third stated that smoking did not attract them in any way. Answers were given directly and without explanation 'no', 'none', 'not at all'.

Two thirds of the participants however stated that smoking did currently hold an attraction for them. Three ex-smokers stated that they still found the smell of a cigarette made them want to smoke again.

*Sometimes the smell, it is awful, but sometimes you just catch that little whiff of it and you think, oh yes...if you just catch say the tail end of it being exhaled, being blown out, that would be oh, I miss that* (Imogen)

Here Imogen stated that the smell was awful, however it still attracted her to smoking, implying that it may not be the actual smell that she was attracted by, but what the smell symbolised or reminded her of. This was an example of a smoking related cue, which could trigger a relapse in a recent ex smoker (Baker et al., 1987; Bliss et al. 1989; Shiffman et al., 1996).

Imogen also demonstrated lack of self-consistency, which could have resulted in cognitive dissonance, as she highlighted a negative aspect of smoking, however then went on to say that she still had an attraction to it. Other aspects of smoking which led the recent ex-smokers and smokers in the process of quitting to have a current attraction to smoking included how pleasurable they used to find it, the 'buzz' feeling that smoking a cigarette created and the memories of being 'young, free, single and childless' that they felt smoking invoked.

Bella summed up previously mentioned and the current research conclusion that when a smoker stopped smoking it was rarely the case that there was entirely no attraction to return to the behaviour.

*I have to admit, it's still there, I don't think once you've tasted the devils fire stick you ever really go back* (Bella)

#### 8.7.15 Theme 15: Government's action to assist smokers

There was discussion throughout the interviews about government interventions to assist smokers, such as discussion of current legislation, ideas for further legislation and alternative methods that the government could utilise. Previous research had explored some of these issues.

Wiltshire et al. (2001) explored attitudes towards tobacco in socially deprived areas of Edinburgh. This qualitative study included discussion of current policy. One issue which was highly discussed was taxation on cigarettes and thus the price of cigarettes. Many of the respondents felt that cigarette tax was excessive and felt that high taxation encouraged and justified the smuggling of cigarettes. They stated that they would always find the money to buy cigarettes, thus tax

increases would only result in them being worse off. Many of the smokers in the study felt that higher taxes punished them for smoking, stating that they were addicted to smoking and would do whatever it took to get hold of their tobacco. Many of the smokers that Wiltshire and colleagues (2001) interviewed were unaware of NHS SSSs (which at the time of the study were newly established) and felt that the government was not doing enough to support them to stop.

Platt et al. (2009) encountered hostility towards the government from some smokers in their qualitative evaluation of smoke-free legislation in England. Some interviewees were sceptical of the smoke-free legislation and felt that the government was intent upon removing their personal freedom. Some of these smokers also felt that their rights were infringed and felt that England had become a 'nanny state'.

These previous studies suggested that smokers held negative opinions of the government in relation to tobacco policies, however this was not necessarily the case with the current sample, where a mixture of attitudes towards the government were presented. This theme was widely discussed in extensive detail and therefore for ease of discussion has been split into a number of sub-themes including current legislation, further legislation and policy boundaries.

The most widely discussed area within this theme was current legislation. Participants discussed price changes, warnings on cigarette packaging and advertising campaigns. Discussion of price increases of cigarettes followed a similar path to Wiltshire and colleagues (2001) findings, where participants said that they would do whatever it took to get hold of tobacco. All participants in the current study who discussed the price of cigarettes stated that increasing the prices did not have any influence on their smoking behaviour and that they would always find the funds for cigarettes.

*I don't think the prices are doing any difference. If they're a smoker they're going to pay no matter how much it costs, whether it's £5 a packet, £10 a packet, they're still going to smoke...we've always found the money from somewhere to buy cigarettes* (Jack)

Other participants supported the research findings relating to counterfeit and smuggled cigarettes, stating that it was very easy to get hold of cheap tobacco.

*I don't think putting up prices is going to help because to be quite honest, I mean...I don't want to incriminate myself but I got friends that used to bring it over from abroad, you know half price* (Mark)

On a population level increasing taxation of tobacco, thus increasing the cost of cigarettes, can lead to a reduction in consumption (The World Bank, 1999; Ranson et al., 2000; Guindon et al., 2002), however on an individual level this may not have been the case with the current sample. As the participants in the current study suggested, when the prices of cigarettes increased, they always found the money to continue to purchase them. If this was not possible, then they found alternative means of accessing tobacco, such as buying counterfeit or smuggled cigarettes. Alternatively some of the participants moved from manufactured cigarettes to roll-your-own, which were cheaper. In the current sample the clients recalled that they still continued to smoke at their previous level, accessing tobacco through other means.

Warnings on cigarette packets were discussed. In this context the participant's opinions were quite split, between the belief that warnings could be effective and a good catalyst for stopping smoking versus them not doing any good as smokers tended to ignore them.

Some of the interviewees discussed the new picture warnings on cigarettes and packets of tobacco. It was felt by some that these warnings were effective at promoting cessation, the reason for this being the fear that the pictures provoked. One participant said that the last packet of cigarettes he bought had a picture warning on it, the first he had seen, he claimed it was the impact of the picture that made him call the NHS SSS helpline on the box. This was an example of how perceived threat could increase cognitive dissonance and, in this context, lead to a quit.

Others claimed that although the picture warnings maybe effective, words alone did not provoke fear, or have any impact upon the individual.

*P Well they should make a stronger message on packets for instance*

*R Smoking kills is pretty tough?*

*P No its not...if you buy a packet of fags now, one says like you just said 'smoking kills' or 'smoking causes damage' you don't even read it. I never used to (Paul)*

This led into the contrasting opinion previously mentioned that smokers tended to ignore the health warnings on cigarette packets, or if they read them, they did not react to the message.

*In terms of the packets and stuff, I don't think smokers look at them, I never did, I know that they have the warnings on them ... I didn't read them, or if I did read them it didn't kind of relate to me, so I didn't find those helpful at all (Abigail)*

Both Paul and Abigail demonstrated trivialisation and discontinuing the processing of information. Paul suggested that the words 'smoking kills' were not strong enough to make him aware of the dangers of smoking and he trivialised the content of the health message. Both Paul and Abigail said that they often did not pay attention to health warnings related to smoking, and even if they did read them, they felt that the warning was not related to them.

As Festinger (1957) alluded to in his early research, if an individual belittled evidence which, for example, proved that smoking was harmful to health, often this could lead to inconsistency as they knew the evidence was there but chose to minimise its importance. If the individual trivialised this evidence enough, they could convince themselves that the evidence was false and thus reduce dissonance.

A similar split of opinion occurred in relation to television and radio advertising campaigns aimed at encouraging cessation. A number of participants felt the advertisements, particularly on the television, were excellent, very hard hitting and



emotive, which could lead an individual to make a quit attempt. Some of the participants talked about the recent 'Scared' advertisement, where a young child talked about not being afraid of spiders, or the school bully, but being afraid that their parents would die from smoking. This advertisement was current at the time of the interviews and was often cited by the clients.

*Oh, that little girl, I'm not afraid of such and such...that is good, that is really because it's from the kids point of view* (Imogen)

This advert focused upon the concept of self-blame. Participants discussed how they would see the advert, where a child feared for their parent's health, and then felt guilty that they could make their child feel like that. This could increase cognitive dissonance, and the individual would either make a quit attempt, as with Imogen, or they could discontinue the processing of information and the advertisement would not have a long term impact upon the smoker, as Oscar describes below.

*See a lot of adverts that get people look at them and they say 'oh god, I've really got to give up smoking' and then a couple of days later they've forgotten about it and they're smoking again, they don't remember the advert* (Oscar)

There was some discussion of further legislation that the government had recently (at the time of interview) introduced, or legislation that was proposed for the future. Although legislation such as increasing the age limit to 18, prohibiting ten packs of cigarettes and prohibiting smoking in cars were discussed with some positive views, there was always a counter argument or way of 'getting around' the legislation. Examples of this included getting someone older to buy the cigarettes, buying counterfeit cigarettes and problems with enforcement of legislation.

One idea which was repeatedly suggested was to prohibit cigarettes altogether and completely stop the production of tobacco. Although problems with this major move by the government were highlighted, such as tobacco production going 'underground' and the public uproar, this 'solution' was supported by some of the participants.

*I mean the only way that people, they're going to get people to stop smoking is if they don't sell cigarettes anymore...just stop selling them* (Oscar)

This could be seen as a way of denying responsibility for their smoking, by suggesting, as Oscar did, that the only way to stop people smoking was through no longer producing cigarettes. This suggested that it was not the individual's responsibility if they smoked, but the government's responsibility for allowing tobacco to continue to be produced. This denial of responsibility may allow an individual to reduce the cognitive dissonance that they felt, as they suggested that the behaviour was out of their control.

In contrast with some of the previously mentioned research three of the participants felt that the government was doing all that it could, that it was doing a great job and it should keep it up. One participant felt that although smoke-free legislation 'fell within the realm of ok' due to the scientific evidence surrounding SHS, she suggested that any further legislation may move tobacco control further towards a 'nanny state' mentality.

Other discussion relating to the government's actions to assist smokers included reducing the price of smoking cessation prescriptions, or making NRT cheaper and making SSSs more widely available and known about. A few participants suggested that the government needed to provide more knowledge to the public through education within schools and targeting parents and home environments. It was suggested that this would encourage correct knowledge about the implications of smoking to be filtered through to young people, with the intention that less young people would initiate smoking. This was further evidence of denial of responsibility and reducing self-blame, as some of the individuals shifted the responsibility on to the government, suggesting that if the government provided better education about the dangers of smoking then less individuals would start to smoke.

*I think the most preventative thing is stopping people from starting...that to me is the best way forward* (Daisy)

## **8.8 Limitations**

There were a number of limitations to this research. Firstly those who agreed to participate in the research may have had different attitudes towards the SSSs, smoking cessation and the smoke-free legislation, than those who did not agree to participate. The sample may therefore have been biased, however of those asked to participate, only two refused, with time limitations being given as their explanation. Thus in this respect it was unlikely that the sample was biased.

The sample was recruited through the SSS, thus the clients may have felt the need to respond in a positive manner when questioned about the SSS. The researcher made it clear however that she was unattached to the SSS and that all responses were anonymous, confidential and would not effect their treatment in any way. In addition to this, the clients were only recruited from one SSS, thus participants were from one area of England. Additionally, as previously stated, those who were attending the SSS may not have been a representative sample of all smokers in England and the sample size was relatively small. This therefore limited the ability to generalise the findings.

Finally, clients were asked to recall how they felt about events that occurred 16 months prior to the interviews. This may have resulted in re-call bias as they may have been unable to correctly remember how they felt about the specific events. This however was inevitable as the smoke-free legislation needed to have been in place for a period of time in order for its implications to be evident.

## **8.9 Conclusion**

Findings from the current interviews suggested that smoke-free legislation had important implications for recent ex-smokers and smokers in the process of quitting. Opinions and attitudes varied in relation to NHS SSSs and smoking in general.

Many reasons were provided for why the clients wanted to stop smoking, the most common reasons for stopping smoking were health, financial incentives or simply that 'the time was right'. Before attending a SSS for the first time many of the participants did not have any expectations of what it would be like. Of those that did, there was a mix between positive and negative expectations. There was a range of past experiences of SSSs, mostly these were good however there were some negative experiences. Interviewees were generally positive about the SSSs and felt that they should continue to function as they were.

Initial opinions of smoke-free legislation in England varied from very positive, to apprehensive, to anger. However once it was implemented interviewees recalled a definite shift in attitude, with almost all of the participants having a positive opinion of the smoke-free legislation.

Many of the recent ex-smokers and smokers in the process of quitting reported that smoke-free legislation had helped them to cut down how much they smoked and in some cases contributed to a quit attempt. Once the participants were in the process of quitting many found that the legislation helped them to maintain abstinence. However, some stated that the legislation had not impacted upon their smoking behaviour.

There was a feeling that in recent years, attitudes towards smoking had changed and that it was no longer socially acceptable to smoke. Recent ex-smokers and smokers in the process of quitting often stated that they disliked smoking and often felt stared at and judged when they smoked in public. It was suggested that the general public had adapted well to the legislation and that it was seen as a positive advance for public health.

A number of the recent ex-smokers and smokers in the process of quitting discussed how they had found smoking cessation easier than they had expected. However, in contrast, many also stated that they had found it harder than they had expected.

Interviewees reported that if smoking was not harmful they would not return to smoking as there were other factors about smoking that they disliked. There was also a resounding 'no' when asked whether they would return to smoking if the smoke-free legislation was reversed.

One third of the interviewees in this study stated that smoking no longer held any attraction for them, however the rest of the participants stated that despite wanting to remain abstinent, smoking still retained some appeal.

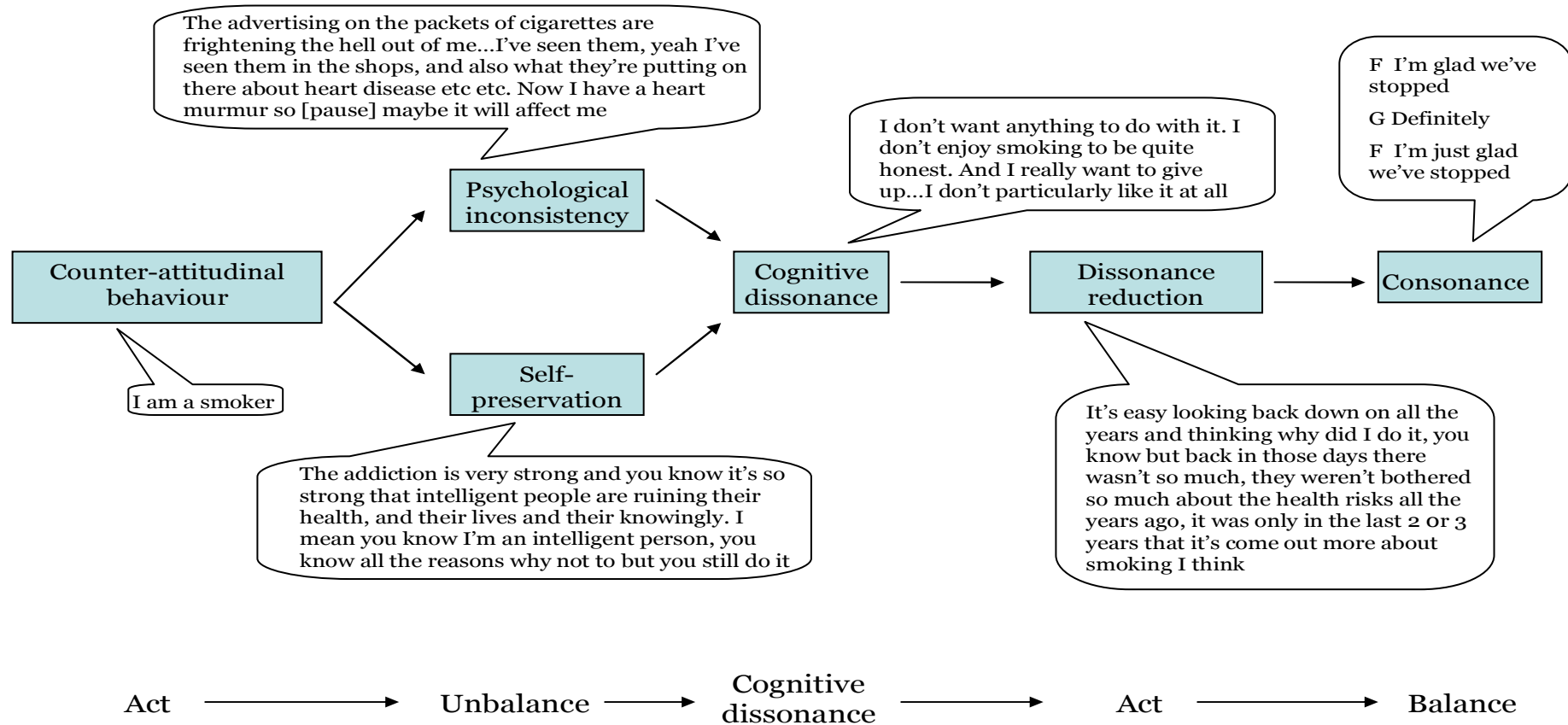
It was generally felt that the government was doing a lot to assist smokers with cessation. Much support was shown for hard hitting warnings and advertisements. It was suggested that the government should prohibit smoking completely and stop the production of tobacco, but it was agreed that logistically this was not possible. Despite a few suggestions for further legislation and educational input by the government, overall there was support for the government's tobacco control policies.

Data from these qualitative interviews were analysed using cognitive dissonance theory as a framework. For the majority of themes discussed within the results, the theory of cognitive dissonance was suitable for this task. With the exception of self-affirmation, all of the constructs from the structural overview of cognitive dissonance theory were applied to the data. There was evidence to support the influence of cognitive dissonance upon the recent ex-smokers and smokers in the process of quitting. It could be said that a purely subjective and relatively abstract concept such as self-affirmation was difficult to communicate through an interview setting. It could therefore be seen, as highlighted in Figure 8.1, that recent ex-smokers and smokers in the process of quitting, in this sample from Stoneyshore, demonstrated all, bar one, of the interlinking functions in the structural model of cognitive dissonance theory.

The evidence for this was demonstrated throughout the discussion of 13 out of the 15 themes. In this sample cognitive dissonance was not present in relation to the discussion of changes to SSSs and beliefs about whether they would return to smoking if the smoke-free legislation was reversed. For the other 13 themes

however the theory of cognitive dissonance was a suitable and fitting framework in which qualitative analysis could occur.

**Figure 8.1: Structural overview of cognitive dissonance theory**







## **Chapter 9:**

# **Quit Attempts In Response To Smoke-Free Legislation In England**

The research presented in this chapter has been published in the international peer reviewed journal Tobacco Control (Hackshaw et al., 2010), a copy of the paper can be found in the appendix (see Appendix 9.1).

### **9.1 Context**

Data within this chapter was collected in England between January 2007 and December 2008. During this two year period new tobacco control policies were implemented and a new smoking cessation medication became available. Many government funded national advertising campaigns were published during this time, with the intention of encouraging smokers to quit. A selection of these policy changes and advertising campaigns have been highlighted below. This is in order to draw attention to events that occurred during the period of data collection, other than the introduction of the smoke-free legislation, some of which may have influenced the respondents' behaviour.

Between January and March 2007 the government ran a graphic advertising campaign entitled 'Hook', where smokers were seen to be attached to fish hooks through the mouth, illustrating that addiction was a serious and irrational behaviour (Department of Health, 2009c). In March and April 2007 'The Invisible Killer' campaign ran which highlighted the dangers of second hand smoke (SHS) (Department of Health, 2009c). In the months preceding and during the implementation of the smoke-free legislation (June – July 2007) a campaign entitled 'Send Off' focused upon people triumphantly saying goodbye to cigarettes (Department of Health, 2009c).

On July 1<sup>st</sup> 2007 the smoke-free legislation, prohibiting smoking in enclosed public places and workplaces was implemented in England (Health Act, 2006). Around this time a new smoking cessation medication, varenicline, was licensed for use in England and was recommended for smoking cessation by the National Institute for

Health and Clinical Excellence (NICE). Over the following 12 months primary care trusts (PCTs) across the UK began to incorporate varenicline into their standard practice, along with bupropion and nicotine replacement therapy (NRT) (Department of Health, 2008b). In October 2007 the legal age to buy cigarettes increased from 16 to 18 (Department of Health, 2010).

A campaign entitled 'Getting Off Cigarettes' ran from December 2007 to March 2008, highlighting the challenges faced by smokers wanting to quit and the support available within the National Health Service (NHS) to overcome these challenges (Department of Health, 2009c). Three further advertising campaigns ran back to back from June to December 2008; 'Wanna be like you', 'Reasons' and 'Scared' which were aimed at smokers who were parents and highlighted the increased risk of smoking initiation for children who were from smoking households (Department of Health, 2009c). Finally in October 2008 hard-hitting pictorial health warnings were introduced onto cigarette packets (Department of Health, 2010).

## **9.2 Background**

An opportunity to analyse secondary data arose whilst carrying out other research within the PhD. Through the researcher's second supervisor, who was based at University College London (UCL), the researcher became a member of the UCL's Tobacco Research Group. Through this group the researcher became acquainted with Professor Robert West, a Professor of Health Psychology and Director of Tobacco Studies at the Health Behaviour Research Centre within the Department of Epidemiology and Public Health at UCL. Professor West, the creator of the Smoking Toolkit Study, invited the researcher to have access to a selection of the Smoking Toolkit Study data for analysis within the PhD. The Smoking Toolkit Study methods are described later in the chapter.

The Smoking Toolkit Study data analysed here assisted in achieving the overall aims of the PhD, to assess the implications of England's smoke-free legislation for NHS stop smoking services (SSSs), to examine the capacity of services to respond to any change in demand and explore the implications of this for policy and practice. Analysis of the current data intended to assess the number of quit

attempts in England in response to the legislation, and this in turn would contribute to the overall understanding of the implications of the smoke-free legislation.

### **9.3 Introduction**

Smoke-free legislation has been implemented in a number of other countries and states across the world (see Chapter 2). Evaluations of the impact of smoke-free legislation in some of these countries suggested implications for smoking and quitting behaviours. For example, an increase in the number of calls to quit lines following the implementation of smoke-free legislation in New Zealand (Ministry of Health, 2006). Smoke-free worksite policies in areas of the USA and Canada were also associated with a reduction in cigarette consumption, and in some cases quit attempts (Bauer et al., 2005). A significant increase in self-reported quit attempts were reported in the year following the implementation of legislation in Norway compared with the 12 months preceding it; although recall bias clearly exists when asking smokers to report quit attempts over a two year period (Lund, 2005).

Attempts to stop smoking in England tend to cluster around January (presumably as part of New Year's resolutions) and March (most likely in response to No Smoking Day) (West, 2009). Indeed in both January 2007 and January 2008 11 % of smokers questioned tried to quit smoking compared with eight percent in the other months of the year (West, 2009). It was not known what effect the smoke-free legislation would have upon the overall number of quit attempts in England, nor upon the distribution of these quit attempts throughout the year.

Prior to the current research there had been no accurate national evaluation of changes in the rate of quit attempts leading up to and following the introduction of smoke-free legislation. It was not possible to gain experimental evidence on the effect of policies such as this; but observing the rate at which smokers tried to stop at frequent intervals over a period of time provided the most accurate indication available.

## **9.4 Ethical approval**

Ethical approval for conducting the Smoking Toolkit Study was sought and gained, by researchers at UCL, from the University College London Graduate School Ethics Committee. Ethical approval is needed to ensure that participants are fully informed about their involvement and about the research, that they participate voluntarily and that they are aware that they can withdraw from the research at any time. Additionally ethical approval ensured that participants were not endangered in any way by the research and that their responses would be treated confidentially.

## **9.5 Aims and objectives**

The primary aim of this secondary analysis was to examine quit attempts in England in response to the introduction of smoke-free legislation. This was done through achieving a number of objectives:

- Examining self-reported intention to quit smoking in the run up to the introduction of the legislation using Smoking Toolkit Study data
- Examining self-reported intention to quit smoking following the introduction of the legislation using Smoking Toolkit Study data
- Examining self-reported quitting behaviour in the six months preceding, and 18 months following, the introduction of the legislation using Smoking Toolkit Study data

## **9.6 Methods**

### **9.6.1 Survey design**

The secondary data were collected as part of the Smoking Toolkit Study (<http://www.smokinginengland.info>), which provided statistics on key parameters relating to smoking cessation in England. The Smoking Toolkit Study, which was

created by researchers at UCL and lead by Professor West, was designed to provide information on smoking and smoking cessation patterns and behaviour among smokers and recent ex-smokers in England. The surveys, which were carried out by the British Market Research Bureau (BMRB), were conducted using a random location sampling design, with initial random selection of grouped output areas, stratified by ACORN characteristics (<http://www.caci.co.uk/acorn/acornmap.asp>) and region, followed by face-to-face computer-assisted interviews by trained interviewers from BMRB, with one member per household, and based on quotas which took into account the probability of being at home (e.g., gender, part time working, age) (Fidler and West, 2009).

#### 9.6.2 Survey content

The surveys were conducted in person by BMRB interviewers and in addition to questions about demographic characteristics (gender, age, social grade, marital status and employment status) respondents were asked questions relating to their smoking status.

Respondents were initially asked the question 'Which of the following best applies to you?' and were given a choice of smoking status for example 'I smoke cigarettes everyday' and 'I stopped smoking completely more than a year ago'. They were only allowed to choose one response.

This produced a sub-sample who reported being either current smokers or having smoked during the past year and it was data from this sample that was reported. These subjects were then asked a further set of questions related to their smoking and quitting behaviour:

The sub-sample was asked whether they had made any serious quit attempts in the past 12 months and if so, how many attempts and how long ago these attempts were made. This was used to work out, for each smoker and ex-smoker, whether a quit attempt had been made in the preceding month.

Additionally, between February and June 2007, respondents who reported smoking in the past 12 months were asked whether they were aware of the forthcoming smoke-free legislation and whether they were planning any quit attempts in response to it.

Between July and November 2007 participants were asked whether they had made a quit attempt that had been prompted by the smoke-free legislation. The survey content can be found in the appendix (see Appendix 9.2).

### 9.6.3 Sample

A cross-sectional national sample of households, involving approximately 1,700 adults monthly, over 16 years of age, including a sub-set of smokers and recent ex-smokers, were selected using a random location sampling design. Between January 2007 and December 2008 41,086 adults were surveyed, of whom 10,560 reported having smoked in the past 12 months and it was data from these adults that were reported here.

The mean age of respondents was 41 years (range - 17-92; sd=16) with proportionally fewer respondents aged 45 and over. There were slightly more male (52 %; n=5,468, 95 % Confidence Intervals (CI)=51-53) than female respondents (48 %, n=5,092, CI=47-49).

There was an equal spread of respondents across social grades C1 (supervisory or clerical and junior managerial, administrative and professional) (25 %, n=2,643, CI=24-26), C2 (skilled manual) (24 %, n=2,544, CI=23-25) and D (semi-skilled and unskilled manual) (23 %, n=2,371, CI=22-23), with slightly fewer respondents in social grades AB (higher managerial, administrative and professional; Intermediate managerial, administrative and professional) (16 %; n=1,720, CI=16-17) and E (casual labourers, state pensioners, the unemployed) (12 %; n=1,281, CI=12-13).

The mean reported number of cigarettes smoked per day was 13 (range - 0 - 100; sd=9) and the mean Fagerstrom Test for Nicotine Dependence (FTND) score was three (range - 0-10; sd=2). There were no statistically significant differences

between respondents to the 2007 and to the 2008 surveys according to gender, age, social grade and daily cigarette consumption.

#### 9.6.4 Analysis

Data were transferred from BRMB to UCL, where they were imputed into SPSS version 13.1 (SPSS, 2004). Categorical and continuous data were analysed using chi-squared tests and t-tests respectively. Quit attempts reportedly made in the past month in July and August 2007 were compared with those in 2008. August was included in addition to July to capture all of those who made a quit attempt in the full month following the introduction of the legislation. For comparison, quit attempts made during other months were compared across the two years.

### 9.7 Results

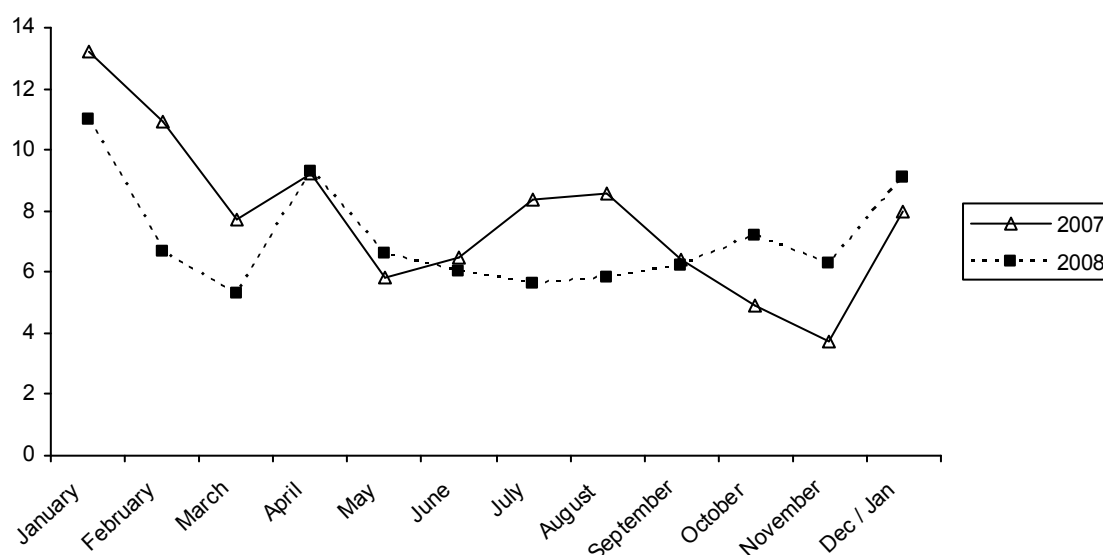
It was found that a larger percentage of respondents reported making a quit attempt in July and August 2007 (9 %,  $n=82$ ,  $CI=7-11$ ) compared with July and August 2008 (6 %,  $n=48$ ,  $CI=4-8$ ) (Fisher's Exact =0.022).

In order to establish whether or not this difference was due to a higher number of quit attempts overall in 2007 compared with 2008, the percentage of respondents who reported making a quit attempt in 2007 and in 2008, excluding July and August, were compared. There was no significant difference between the proportion of respondents setting a quit date in 2007 (8 %,  $n=391$ ,  $CI=7-9$ ) compared with 2008 (7 %,  $n=270$ ,  $CI=6-8$ ) (Fisher's Exact =0.270).

Figure 9.1 showed the percentage of respondents making a quit attempt by month for 2007 and 2008. Both 2007 and 2008 showed a peak in quit attempts in January and a second peak three months later in April, probably reflecting quit attempts made in response to No Smoking Day, held annually on the second Wednesday of March. The other shared peak in December/January was most likely an artefact of the fact that the December data collection ran into January for both years and hence picked up New Year quitting. The higher number of quit attempts during July

and August 2007 compared with 2008 seemed to have been at least partially offset during October and November.

Figure 9.1: Percentage of respondents making a quit attempt by month for 2007 and 2008



When this data was considered by quarter (see Table 9.1), in the first and third quarters the percentage of current smokers making a quit attempt in 2007 was significantly higher than for 2008. The percentage making a quit attempt in the second quarter was identical but, whilst the percentage of quit attempts was lower in 2007 than 2008 in the fourth quarter; this did not reach statistical significance.

Table 9.1: Percentage of respondents making a quit attempt by quarter for 2007 and 2008

Quarter	2007 % of quitters (CI; n/N)	2008 % of quitters (CI; n/N)	Fisher's Exact Test (2-sided)
1 <sup>st</sup> (January to March)	10 (9-11; 191/1,866)	8 (7-9; 98/1,255)	p=0.023
2 <sup>nd</sup> (April to June)	7 (7-8; 98/1360)	7 (6-8; 90/1,247)	p=1.0
3 <sup>rd</sup> (July to September)	8 (7-9; 110/1,393)	6 (5-7; 75/1,282)	p=0.039
4 <sup>th</sup> (October to December/ January)	6 (5-6; 74/1,339)	7 (6-8; 55/817)	p=0.26



In July and August 2007 19 % (n=75) of all smokers making a quit attempt (n=394) said they did so in response to the introduction of the smoke-free legislation. There was no statistically significant difference between men (21 %, n=40) and women (17 %, n=35) in their reported quit attempts in response to smoke-free (Fisher's Exact =0.443). There was also no difference in reported quit attempts in response to the smoke-free legislation according to social grade (Fisher's Exact =0.727) or cigarette consumption (Fisher's Exact =0.553). There was, however, a significant inverse linear association by increasing age: 16-24 (28 %, n=21); 25-34 (21 %, n=16); 35-44 (31 %, n=23); 45-54 (13 %, n=10); 55-64 (5 %, n=10) and 65+ (1 %, n=1) ( $\chi^2=7.755$ , df=1,  $p<0.005$ ).

In each monthly survey between February and June 2007 (inclusive) respondents were asked whether they had any plans to quit smoking in response to the impending smoke-free legislation (see Table 9.2).

Table 9.2: Intention to quit in response to the introduction of the smoke-free legislation: February – June 2007

<b>Response</b>	<b>February % (n, CI)</b>	<b>March % (n, CI)</b>	<b>April % (n, CI)</b>	<b>May % (n, CI)</b>	<b>June % (n, CI)</b>
Don't know	0.9 (4, 0.2- 2.2)	0.4 (3, 0.08- 1.1)	0.2 (1, 0.006- 1.3)	0 (0)	0.5 (2, 0.07- 1.9)
I plan to quit before the legislation comes into force	18 (84, 15- 22)	26 (215, 23- 29)	19 (84, 15- 23)	12 (54, 9-15)	7 (26, 5-10)
I plan to quit when the legislation comes into force	7 (31, 5-10)	9 (73, 7-11)	10 (43, 7-13)	12 (52, 9-15)	16 (59, 12- 20)
No definite plan	74 (337, 70-78)	65 (536, 62-68)	72 (315, 67-75)	77 (344, 73-80)	77 (283, 72-81)
Total number:	457	827	443	450	370

A large majority of smokers surveyed had no plans to quit and this remained largely static each month, apart from in March when there was an increase in the percentage who planned to quit before the legislation came into force. There was a

significant trend across months for intention to quit, both for before and after the legislation was introduced ( $\chi^2=27.175$ ,  $df=1$ ,  $p<0.0001$ ). The percentage of respondents planning to quit before the legislation came into force decreased over time, from 18 % in February to seven percent in June. Meanwhile, those who planned to quit when the legislation came into force increased from seven percent in February to 16 % in June.

## **9.8 Discussion**

In this chapter intentions to quit and quit attempts in response to the introduction of smoke-free legislation were explored, this was the first time that this has been reliably reported on a national scale. The percentage of smokers reported as making an attempt to stop smoking in July and August 2007 (9 %) was significantly higher than for July and August 2008 (6 %). This difference, which equates to about 320,000 smokers making a quit attempt when extrapolated to the general smoking population, coincided with the smoke-free legislation.

This finding could provide policy-makers in countries, where prohibiting smoking in public places and workplaces has yet to occur, with potentially useful estimates of the size of effect on quitting that may be expected. The fact that there was a non-significant dip in quit attempts later in 2007 suggested that the smoke-free effect might have been mitigated by subsequent reduction in quitting activities (see Figure 9.1). Table 9.1 showed that there was a significant difference in quit attempt rates between 2007 and 2008 in the first quarter (January – March) and third quarter (July – September). It could be hypothesised that the difference in the first quarter may have occurred because those who would have quit in the 2008 New Year period may already have quit around the time that the smoke-free legislation was introduced (ie. July 2007; third quarter). It could also be seen that the third quarter in 2007 showed a similar percentage of people making a quit attempt as the first quarter in 2008, thus any effect of smoke-free was of a similar magnitude to the annual ‘New Year effect.’

Roughly one quarter of smokers surveyed in the five months leading up to implementation of smoke-free legislation stated that they intended to quit because

of the legislation, either before or after it came into force. Interestingly, it should be noted that in February and March 2007, a larger proportion of people were planning to quit prior to the introduction of the legislation than at the time of the legislation. However as July 1<sup>st</sup> grew nearer, more planned to quit once the legislation was enforced as opposed to prior to its introduction. This statistically significant finding highlighted a gap between intention and behaviour.

Once the legislation was in place from 1<sup>st</sup> July 2007 nearly one in five smokers who made a quit attempt in the five months following the implementation stated that they had stopped because of the legislation; this was equally true for smokers in routine and manual groups as it was for smokers from higher social grades. The fact that an increase in quitting directly ahead of the legislation was not observed suggested, further to the previous point, that intention to quit at that time was not enacted in large numbers.

It was encouraging that reported quitting in response to the introduction of the smoke-free legislation did not differ according to social grade. This suggested that whilst smoke-free legislation may not necessarily have contributed to reducing the gap in smoking prevalence between lower and higher social grades, it did not widen inequalities. Smokers in lower social grades were just as likely to try and stop smoking as those in higher social grades, however the former were half as likely to succeed (Kotz and West, 2009). Smokers under 45 years of age were significantly more likely to report stopping smoking because of the legislation than older smokers. This had additional health implications as the increased benefits to an individuals health experienced when they stop smoking at a younger age are well established (Royal College of Physicians (RCP), 2000).

## **9.9 Limitations**

The current study had a number of limitations. The role of the researcher was the first limitation to report. This was secondary analysis, and thus the data was collected by another researcher. The current researcher had no input into the design, methods or timing of the research, therefore limiting control over the research outcomes or scope of analysis that could be conducted. Secondly, quit

attempts were self-reported and smokers may have forgotten or misreported attempts to stop. It is recommended that in most settings biochemical verification is provided as additional insurance that the participants self-reports were accurate (Society for Research on Nicotine and Tobacco (SRNT), 2002). It should also be noted that not all quit attempts are sustained in the longer term, with around five percent of quit attempts lasting at least one year and about three percent lasting indefinitely (Hughes et al., 2004). In addition, the question could be asked whether people can reliably attribute a quit attempt to one particular event, such as the smoke-free legislation. However the comparison between July–August 2007 and July–August 2008 suggested that the period of time where the legislation was introduced coincided with a significantly higher number of quit attempts, which could justifiably be attributed to the smoke-free legislation. Further to this, data was unavailable for 2006, thus comparisons could not be made with the period prior to January 2007. It may have been of interest to explore links between the current data and national smoking prevalence rates, however this was not covered in the scope of this study or the overall PhD.

## **9.10 Conclusion**

The introduction of smoke-free legislation in England was associated with a significant increase in the percentage of smokers attempting to stop at the time that the legislation was introduced. The legislation appeared to have had an equal impact on quitting behaviour across social grades and was particularly effective as a prompt to quitting amongst smokers less than 45 years of age.



## **Chapter 10: Conclusions**

### **10.1 Introduction**

The main aim of this doctoral research was to explore the implications of the smoke-free legislation in England for National Health Service (NHS) stop smoking services (SSSs). It was intended that the research would examine the capacity of SSSs to respond to any change in uptake that resulted from the new legislation, to understand the impact of the legislation on smoking behaviour, and to highlight the implications for policy and practice.

In order to achieve these aims, five inter-related pieces of research were conducted. The key findings from each element of the PhD are discussed below in relation to the main aims of the thesis, drawing comparisons with previous research. The findings have been grouped thematically under four headings; NHS SSS structure and development; interactions between NHS SSSs and smoke-free legislation; quit attempts, smoking cessation and smoke-free legislation and smoke-free legislation and the smoker. Following this, reflections on the research are made and recommendations for policy and practice are outlined. Finally suggestions for future research are included.

### **10.2 National Health Service stop smoking service structure and development**

Research involving NHS SSSs in England was initiated in the months preceding the introduction of the smoke-free legislation. Survey 1 (see Chapter 4) explored the structure and functioning of 77% (n=132) of England's SSSs. Content focused on the SSS co-ordinator's role, information about the internal processes of the SSSs, training of new staff to provide cessation support and intention to reach and treat target groups highlighted by the government. In addition to this, interviews with 14 SSS staff and co-ordinators from two SSSs provided further qualitative data regarding the SSSs, staff roles within the service and their influence on smoking cessation (see Chapter 6). Interviews with 17 SSS clients added to the

understanding of the experience of the services leading up to and following the introduction of the smoke-free legislation (see Chapter 8).

There was considerable variation amongst the SSSs in relation to their service management and staffing, particularly concerning the number of core and community advisors. Some services were staffed predominantly by core specialists, who were often working on a full time basis, whilst other services employed a significant number of community advisors who worked part time in a wide range of settings. Many of the staff interviewed suggested that wider outreach work within the community was becoming normal practice for them and their colleagues. This may have reflected the impact of government targets to reduce smoking prevalence in routine and manual workers and other 'hard to reach' groups. Community-based initiatives have been shown to be effective for recruiting and retaining these groups of smokers (Murray et al., 2009). 'A Smoke-free Future', the new tobacco control strategy for England promotes 'smoke-free communities' where different areas of the community were encouraged to work in partnership to increase cessation and thus reduce prevalence (Department of Health, 2010) .

When compared with previous evaluations of the NHS SSSs (Pound et al., 2003; Coleman and Pound, 2003) a general shift was observed in this research regarding reported methods of service delivery. This shift involved a transition from a traditional group-based method of treatment to a more individualised treatment model, with these findings supported by other research (Bauld et al., 2005) and recent service and monitoring guidance. In 2008/2009 530,942 smokers made a quit attempt using one to one support compared with 18,051 smokers who made a quit attempt using closed group support (Department of Health, 2009a). Despite a lower average self-reported quit rate for one to one support than closed group support (49 % and 64 % respectively), 77 % of successful self-reported four week quitters in 2008/2009 were via one to one support, as opposed to three percent from closed group support (Department of Health, 2009a). Despite this lower success rate, more clients used one to one support. This may have been a combination of the client choice and what the services were able to provide. If more smokers were expected to make a quit attempt following the introduction of

the smoke-free legislation, with evidence suggesting that the preferred method of support was one to one, then SSSs potentially needed to be providing more opportunities for one to one support. This appeared to have been the case with many of the services that responded to survey 1. Alternatively, due to the increased uptake, SSSs could have seized this opportunity to expand group interventions, thereby offering more effective interventions for smokers that were also more cost effective for the SSS. It appeared, however, that the majority of services did not do this.

In addition the survey showed that the services seemed to be changing their focus from the general population approach, to targeting specific, and often disadvantaged, groups. This was illustrated by SSSs increase in the use of alternative treatment methods such as text messaging, internet support and by increasing the range of venues used within the community to provide cessation support. When compared with previous research conducted by Pound et al. (2003) and Coleman and Pound (2003) many SSSs had increased the number of pregnant smokers, disadvantaged smokers, young smokers and ethnic minority smokers that they were targeting their service towards. This transition is consistent with current tobacco control policy at national level, which aims to 'provide more options for effective quitting and improve the effectiveness of all quit attempts' (Department of Health, 2010, pg 46). Disadvantaged smokers are just as likely to want to quit smoking as affluent smokers, however there are often barriers to them accessing the support that they need (Bauld et al., 2007b). If the SSSs make efforts to target these groups, this may remove some of the problems of access that contribute to the low number of disadvantaged smokers who quit.

Staff working within the SSSs conveyed a variety of attitudes towards different aspects of their service and the NHS in general. Many articulated a passion for their tobacco control role by demonstrating enthusiasm for the smoking cessation, health promotion and illness prevention work that they conducted. As only a small number of staff were interviewed in the current research, it was not possible to generalise these findings, however other work has reported similar results, including a recent training needs analysis conducted in 2009 by the NHS Centre for Smoking Cessation and Training (NCSCT, 2010).



Client's accounts of their treatment were largely positive. They often praised the individual treatment that they received, which supported findings from Chapters 4, 5 and 6 that highlighted the client focused service provided by SSSs. This finding is supported by May et al. (2009) whose research explored client's views of NHS SSSs and found high levels of reported satisfaction.

Service staff were not always so positive. They pointed to a lack of training and promotion opportunities, short term contracts and a divide between clinical staff and higher management, separated by 'bureaucratic red tape'. Targets set by the government and Primary Care Trusts (PCTs) were often an issue of contention, with many staff feeling that these were unrealistically high. Some felt that targets added unnecessary pressure to their work and it was believed that they could reduce individuals down to 'numbers on spreadsheets', potentially compromising client care. Some thought that problems were actually created by targets; for example, that the four week successful quit statistic could put pressure on local PCTs to recruit as many clients as possible, which could in turn interfere with the quality of treatment provided. This conflict of volume versus quality has recently been noted by the government who are considering future methods of performance monitoring (Department of Health, 2010).

Structural and organisational limitations within the SSSs have been researched previously, for example research by Hodgson and Thomson (2008). They highlighted that high performing services were often those where staff felt involved with the team, where achievable aims were set and protocols were simple and transparent. Additionally, similar limitations within the services were highlighted in a recent NCSCT training needs analysis (NCSCT, 2010). Amongst the staff interviewed in the current research, some reported that they did not intend to remain working in the field of smoking cessation in the longer term due to the organisational barriers and lack of promotion opportunities highlighted earlier. This situation needs to be addressed within the NHS and SSSs in order to retain SSS staff, who are often highly committed and possess skills that are valuable in maintaining the success of the services.

### **10.3 Interactions between National Health Service stop smoking services and smoke-free legislation**

It was anticipated that smoke-free legislation would have an impact on the SSSs. Alongside exploring the structure and function of the services, survey 1 (see Chapter 4) allowed for exploration of how the SSSs were preparing for the introduction of the legislation and any changes that they were expecting to occur following implementation. In addition to this, survey 2 (see Chapter 5), conducted ten months after the introduction of smoke-free legislation, reported responses from 57 % (n=86) of SSS co-ordinators. Questions focused on the structure and functioning of the SSSs in the period following the introduction of the legislation, client demand, funding, staffing, service delivery, training, service profile and preparation for smoke-free legislation. Findings from surveys 1 and 2 were compared. Interviews with 14 SSS staff were also conducted, to provide further insight into the impact of smoke-free legislation on SSSs (see Chapter 6).

In the period preceding the introduction of smoke-free legislation in England, many SSSs were actively preparing for the potential impact of the law on client numbers. Almost all were planning to run local advertising campaigns, promoting their service and highlighting what support was available to the public. Despite most expecting little or no increased budget, the majority of co-ordinators intended to employ new staff and set up more support structures in order to cope with the anticipated increase in demand. This included increasing the quality of training provided to current SSS staff, in order to improve core competencies in those delivering smoking cessation interventions, as directed by the government (Department of Health, 2010). It appeared that almost all of the services were expecting large increases in client demand, perhaps as a result of previously publicised research in Scotland and examples from other countries that had gone smoke-free (Fong et al., 2006b; Lund, 2007; Edwards et al, 2008). Overall, findings from the surveys suggested that SSS co-ordinators felt that they were prepared for smoke-free legislation.

Comparison between surveys 1 and 2 suggested that there were some limited changes to service structure and functioning following the introduction of the

legislation in England. There was an increase in the number of clients accessing the SSSs, although co-ordinators commented that this increase was smaller than anticipated. It could be argued that the smoke-free legislation in England resulted in a smaller increase in quitters than had occurred in other countries that had gone smoke-free (Fong et al., 2006b; Lund, 2007; Edwards et al, 2008). However, international comparisons have limitations due to the differences between health care systems and smoking cessation services in England and elsewhere.

The United Kingdom (UK) is the only country to have a free at point of service, national smoking cessation service. Regular service monitoring and guidance reports are produced setting out evidence based treatment guidelines for services to follow (e.g. Department of Health, 2009a). The services are monitored through quarterly returns which collect key information and tobacco control strategies emphasise the importance of the SSSs (Department of Health, 2010). In the most recent evaluative survey comparing tobacco control policies in 30 European countries, the UK scored the highest number of points. With 93/100, the UK received full marks for policies relating to price, public information campaign spending and treatment (Joossens and Raw, 2007). Other countries do not have a directly comparable national smoking cessation programme. For example, in New Zealand, the number of calls to quit lines increased considerably following the introduction of smoke-free legislation, in comparison with the previous year (Edwards et al., 2008). It would be misleading to directly compare increased number of calls to a quit line in New Zealand with increased number of smokers setting a quit date through a SSS in England. It is potentially a simpler behaviour to call a quit line for advice, than to attend a SSS for support. Those attending the SSS may be likely to be more committed to quitting and thus these numbers would be lower. It may also have been the case that in England, smokers were making unaided quit attempts, with or without the use of over the counter nicotine replacement therapy (NRT). It is difficult to monitor unaided quit attempts, therefore more smokers in England are likely to have made a quit attempt than SSS figures suggest, as illustrated in Chapter 9.

It could be suggested that since Scotland and England have a similar SSS structure, the reported increase in client demand observed in Scotland should have

been replicated in England. However the Scottish smoke-free legislation was implemented 16 months prior to the English legislation. Levels of second hand smoke (SHS) exposure were higher in Scotland, as was smoking prevalence pre-legislation (Semple et al., 2007). Therefore the introduction of smoke-free in Scotland could be described as a more significant change than in England. In addition, Scotland's experience allowed the English services to observe the patterns of smoking cessation and client demand around the time of the Scottish legislation. This in turn allowed them to be more prepared for the increase in demand, for example by increasing service provision in the months preceding the legislation's introduction. It may have been the case that the preparation that many of the SSSs reported prior to the introduction of the legislation led to a more gradual increase in clients over the preceding months, making the post legislation increase appear smaller than expected. This advanced preparation also meant that many of the services felt that they were able to cope with the increase in client numbers, without it causing significant disruption to, or a reduction in, the quality of the service provided.

Other factors which may have impacted upon the smaller increase in client numbers than expected included the fact that the weather in England was mild when the legislation was introduced. Smokers may have been happy to continue to smoke outside for a few months following implementation, thus there was not as many people wishing to quit smoking as expected in July 2007. Alternatively, individual differences between smokers and their quitting behaviours may have resulted in the lower than expected increase in client demand. Smokers in Scotland, Norway and New Zealand may have responded in a different manner to smokers in England following the introduction of the legislation, due to their individual and cultural differences.

Following the legislation's introduction in England, new staff were employed and additional smoking cessation training was provided for health care professionals within the community. This increase in training was consistent with government plans to expand the reach of SSSs (Department of Health, 2010). Additionally, more staff might have been employed and further smoking cessation training provided following examples from other countries where in the months surrounding

the introduction of smoke-free legislation an increase in the number of smokers trying to quit was seen (Brodie, 2006; Ross, 2006). However, a lack of advanced knowledge about future budgets meant that many of the co-ordinators in the current research were unable to plan these changes in advance, as they would perhaps have wished to. This may have resulted in added pressure for the co-ordinators and other SSS staff.

Interestingly, it was felt by many of the interviewed advisors that the legislation had not had much impact upon their role, changes within the service or their day to day job. This was contradictory to aspects of surveys 1 and 2, where co-ordinators discussed changes to their SSS. These changes may have occurred, but were not noticeable to advisors in terms of the day to day delivery of treatment.

It was observed by co-ordinators that an important factor in increasing client demand for the SSSs around the time that legislation was introduced, was raising the services' profile, and continuing to maintain this raised profile. Research has continued to highlight that it is inefficient to have supportive, well maintained SSSs, if local smokers are not aware of, or able to, access them (Bauld et al., 2007b; Murray et al., 2009, Department of Health, 2010). It was perhaps the case that by services linking their SSS publicity in with national publicity relating to the smoke-free legislation, smokers were provided with a link between having an additional reason to want to quit smoking and being able to access the help that they needed to do so. Seeing national advertising campaigns on billboards and on the television for the smoke-free legislation, alongside local advertising campaigns on local radio and in local newspapers for the SSS may have led to more smokers accessing the services. Alternatively the link between the smoke-free legislation, increasing the service profile and an increase in client demand may not have been as directly related. New publicity for the SSS, irrespective of whether it linked in with national smoke-free legislation campaigns or not, may have encouraged more smokers to contact the services.

The majority of the interviewed staff were optimistic about the smoke-free legislation, seeing it as an opportunity to improve public health, change attitudes towards smoking and reduce smoking prevalence. It was felt that smoke-free

legislation made it easier for clients to maintain abstinence once they had quit smoking. Staff did not necessarily feel, however, that the legislation had directly led to cessation for all of their clients, but was one factor amongst many that encouraged quit attempts. This finding positively corresponded with findings from Chapters 8 and 9, as well as other research that suggested that smoke-free restrictions can help maintain abstinence, and in some cases lead to quit attempts (California Department of Health, 2004; Bauer et al., 2005; Lund, 2005; Ministry of Health, 2006; Hackshaw et al., 2010). This is discussed further below.

#### **10.4 Quit attempts, smoking cessation and smoke-free legislation**

A collaborative piece of research between the author of the thesis and researchers at University College London (UCL) was conducted to assist exploration into the links between quit attempts, smoking cessation and the smoke-free legislation (see Chapter 9). Researchers from the British Market Research Bureau (BMRB) conducted face to face interviews, from January 2007 to December 2008, with 10,560 adults, all of whom had reported smoking in the previous 12 months, as part of the ongoing Smoking Toolkit Study. Interviews explored intentions to quit smoking and quit attempts in response to the introduction of the smoke-free legislation in England. Quantitative data collected during these interviews were analysed by the author of the thesis, along with researchers at UCL.

A significantly higher percentage of smokers reported making a quit attempt in July and August 2007, compared with July and August 2008 (Hackshaw et al., 2010). This increase in quit attempts coincided with the introduction of the legislation, which could have provided an explanation for this behaviour change. This conclusion supported findings from countries that went smoke-free, that suggested that smoke-free legislation led to an increase in quit attempts at the time that the legislation was introduced (Lund, 2005; Bauer et al., 2005; Ministry of Health, 2006). However, this significantly higher number of smokers making a quit attempt slightly contradicted the findings from surveys 1 and 2, as although the co-ordinators reported an increase in client demand for their SSS, it was not as large as they had expected it to be. There may be a number of reasons for this. Firstly co-ordinators may have over anticipated the number of additional clients that would

be accessing their service. They may not have accounted for smokers that made a quit attempt prior to the legislation, or had unrealistic expectations of how many more smokers would access the service. Therefore there was a significant difference between the anticipated and actual increase in client demand, resulting in a general feeling that there was little increase in demand for their service. Alternatively it may have been the case that many of the smokers that made a quit attempt who were interviewed in Chapter 9, made their quit attempted unaided. This meant that they may have made a quit attempt without accessing a SSS, thus these quit attempts would not have been recorded by the services.

At the beginning of every year in England, as well as other countries, many people make a quit attempt as result of New Year's resolutions. The size of the increase in quit attempts around the time of the introduction of the smoke-free legislation was similar to the size of the annual 'New Year effect' seen in England. This might suggest that every year, in January, the SSSs have an opportunity to maximise the amount of people setting a quit date through their service. They could do this by increasing their local publicity, linking in with national smoking cessation campaigns and thus increasing their profile, as they did around the time of the smoke-free legislation.

It was interesting to note that although there was a significantly higher number of smokers making a quit attempt in July 2007 compared with the following year, there was also a decline in the number of smokers setting a quit date in the later months of 2007 compared with 2008. This could suggest that in 2007 those who made a quit attempt in July may have been people who would have made a quit attempt later in the year if the legislation had not been implemented. If smokers are more likely to make a quit around the time that a new legislation is implemented, then this is the period of time where smoking cessation efforts by SSSs need to be directed. Similar findings were reported in other countries, for example in Scotland. Fowkes et al. (2008) found that in the three months preceding the introduction of the legislation there was an increase in the numbers of smokers giving up. However the numbers of smokers giving up in the later months of 2006, following implementation, were lower than had been seen in previous years. Similarly Lewis et al. (2008) reported an increase in over the counter sales of NRT in the early

months of 2006, thus the months preceding and around the time of the introduction of the legislation. However this increase in NRT sales was not witnessed in the later months of 2006.

One fifth of those who made a quit attempt in the five months following the introduction of the English legislation stated that it was directly due to the legislation (Hackshaw et al., 2010). This is further evidence that smoke-free legislation may have contributed to an increase in quit attempts and had an impact upon quitting behaviour.

A statistically significant difference was found between smoker's intentions to quit and their quitting behaviour, especially in the months preceding the legislation (Hackshaw et al., 2010). This is known as the intention-behaviour gap, where there is a difference between an individual's behavioural intention and their actual behaviour. Psychological theory has attempted to explore this relationship, such as the Theory of Planned Behaviour (TPB). Proposed by Ajzen in 1985, the TPB attempted to explain the complexities of behaviour change. The concept of 'perceived behavioural control' was thought to be the link between intention and behaviour (Ajzen, 1985). Perceived behavioural control is based on the concept of self-efficacy, which was proposed in Bandura's Social Cognitive Theory (1977). The more self-efficacy an individual possesses, eg. the more conviction they have that they can successfully execute the desired behaviour or act, the higher their perceived behavioural control (Bandura, 1977). Thus if an individual has high perceived behavioural control, they will be more likely to bridge the intention-behaviour gap, and successfully carry out the desired behaviour. In the current example one way to increase the smoker's perceived behavioural control would have been through them having awareness of and access to smoking cessation support. SSSs need to ensure that sufficient support is in place both in terms of access to their service and also the treatment provided, so that those who choose to stop smoking have the maximum opportunity to achieve the intended behaviour change.



## **10.5 Smoke-free legislation and the smoker**

Interviews with 17 people who were making a quit attempt with support from a SSS explored the experience of attending a SSS and aimed to understand what the smoke-free legislation meant to a smoker. The interviews investigated the individuals' smoking behaviour, their experiences of NHS SSSs and their past and current attitudes towards smoke-free legislation (see Chapter 8).

There were initially mixed attitudes towards the smoke-free legislation prior to its implementation amongst those interviewed. Half were very positive about the legislation; they hoped it would lead to a reduction in their smoking and would create smoke-free environments, whereas others worried that it would disrupt their social networks and force them to smoke outside in all weather conditions. However, this rapidly changed to predominantly positive and supportive attitudes towards the legislation following its implementation. This finding is supported by research that has focused upon public attitudes, compliance and support for the legislation in Scotland and England (Office for National Statistics (ONS), 2008b; Fowkes et al., 2008; Platt et al., 2009). Platt and colleagues conducted an evaluation of smoke-free legislation in England and found similar patterns to those in the current client interviews. For example, they found a mix of attitudes towards the legislation before it was implemented. Younger and more affluent participants were often optimistic about the legislation, whereas older and less affluent participants were less inclined to be positive about its implementation. There were concerns about the implications upon social networks and fears of isolation and stigmatisation, as with the current research (Platt et al., 2009). It was encouraging that, despite the limited size of the current sample, at only 17 participants, similar findings were reported in a large scale longitudinal study.

Many of the clients interviewed demonstrated feelings of cognitive dissonance, which resulted in their changing attitudes towards the legislation. For example, some felt negative towards the legislation before it was implemented as they believed it was going to dramatically alter their social life, however once the legislation was introduced, they realised it was not as bad as expected, and they were still able to enjoy socialising.

The legislation led to a reduction in cigarette consumption for some of the clients that were interviewed and in some cases this resulted in a quit attempt. This finding from a relatively small sample of 17 was supported by the noted increase in quit attempts reported in Chapter 9, where a significantly larger sample of 10,560 was studied. In the interviews, smokers commonly reported that once a quit attempt had been initiated, the legislation had helped to maintain abstinence through the removal of smoking cues and by changing public attitudes towards smoking. Other research has reported similar findings (Howie et al., 2006; Department of Health, 2008a; Platt et al., 2009). For example Platt et al. (2009) found a general pattern of reduced consumption among the participants in their longitudinal study, with many cutting down and to a lesser extent quitting.

An aim of the smoke-free legislation was to change public attitudes towards smoking and make smoke-free 'the norm'. Interviewees often reported that this was the case, confirming that their personal opinion of smoking had changed, as well as talking anecdotally about the attitudes of the public in general. Again there was some evidence of cognitive dissonance where the clients initially held conflicting attitudes; for example 'It is socially acceptable to smoke in public' and 'SHS is dangerous, and smoking in public can harm others', leading to cognitive dissonance. Thus attitudes were changed in order to remove the dissonance, resulting in the belief that it was no longer acceptable to smoke in public. Other research such as Hilton et al. (2008) and Platt et al. (2009) drew similar conclusions, suggesting this aim of the legislation was achieved.

It was a positive finding that the majority of the clients felt that the government was doing all that it could to support smokers to quit. It was felt that this commitment by the government to reduce smoking prevalence must continue. The comprehensive tobacco control strategy for England, published in February 2010 illustrates further government plans to achieve this aim (Department of Health, 2010).

## **10.6 Reflections on the research**

Each empirical chapter within this doctoral thesis has a limitations section. This concluding section includes some overall reflection on the limitations of the thesis research as a whole, the role of the researcher and experience of conducting the PhD.

### **10.6.1 The role of the researcher**

The role of the researcher is commonly to examine and report upon a chosen topic or area without personal or professional bias (Bowling, 2006). It is unrealistic however to believe that past experiences will not impact upon the understanding and interpretation of data. This is the concept of reflexivity, which is particular to the qualitative data process. As the research forms part of the social world that is being researched, awareness is needed that the researcher's role within the situation should be considered and taken into account (Donovan and Sanders, 2006). So for example in the current interviews, the act of the researcher asking questions about the smoke-free legislation, may in turn have had an impact upon the staff and clients' opinion of the smoke-free legislation. Van Maanen (1988) highlighted that it should be the researcher's intention to remain neutral and uninvolved, however despite this, the researcher needs to be aware of how their methods and analysis may have impacted upon the conclusions drawn (Mays and Pope, 2000). In the current research, the researcher had personal experience of the SSSs. As a trained and practicing community advisor, the researcher had previous understanding of the structure and functioning of the services. And to a more limited extent, smoker's views about tobacco control policies including smoke-free legislation. This resulted in conflict between researching as the 'researcher' and researching as the 'professional' or 'clinician'.

The word conflict suggests a negative connotation; however this was not necessarily the case. The researchers' professional understanding increased her ability to empathise with both SSS staff and clients, allowing interviews to be in depth, frank and insightful where perhaps they may not have been otherwise. Being able to talk in a 'SSS language', using terms specific to people in the

process of quitting and those helping them to do so, for example, using the correct names of medications and treatment delivery methods, meant that interviewees were put at ease and the researcher was given open access to personal experiences and opinions.

There was the potential however for this conflict to have a slight detrimental effect. From working within the NHS and supporting clients to stop smoking the researcher would have already formed personal opinions relating to the research topic, which may have influenced analysis. It is impossible, however, to conduct research in a vacuum; past personal experiences cannot be ignored, thus the researcher must simply be aware that these exist and maintain an objective position throughout each stage of research. Unlike with quantitative research, the aim of qualitative research is to produce a 'coherent and illuminating' description and perspective of the specific research area. This is acquired through consistent, detailed study of a situation, as this study aimed to do (Ward-Schofield, 1993).

#### 10.6.2 Additional limitations

These studies were conducted as PhD research, which introduced a number of limitations, largely involving limited resources. The first of these resources was time. Traditionally PhD's in the fields of psychology and social policy last about three to four years. During this time everything from literature reviews to formulation of ideas, collection of data to analysis, conclusions to writing up and submission must occur, which limits the time available to conduct a sizable study. In an ideal world, without time restrictions, further interviews with staff and clients would have been conducted, and qualitative data could have been collected from more than two SSSs.

In a similar manner, the researcher was predominantly working alone. Thus there were further limits upon the amount of work that could be completed. Additionally, the research was funded by Cancer Research UK, and although they generously provided enough funds to conduct the different stages of research, there were of course limits upon the total expenditure.

It was felt however, that within the time, funding and researcher restrictions of the PhD, sufficient data of a publishable standard was collected and reported in order to answer the research question.

## **10.7 Recommendations for policy and practice**

The findings from this research have a number of potential implications for policy and practice. First; in countries that are implementing smoke-free legislation, preparation is key. The smoke-free legislation in England was predominantly a success, and lessons can be learnt both from what helped to achieve this success, along with factors that inhibited it. Early preparation for the changes that were likely to occur as a result of the legislation was highlighted as a key factor in the success of the legislations implementation in England. Other countries could follow examples from the English smoke-free legislation and other smoke-free countries and begin setting up and publicising smoking cessation services as early as possible, as highlighted in Chapters 4 and 5. They could also ensure that funding and facilities, such as staff, venues and medications were available, particularly in the months preceding and following the introduction of the legislation, when increased quit attempts would be expected.

Smoke-free legislation can lead smokers to make a quit attempt as well as helping to maintain abstinence in those who have already quit. This was highlighted in chapters 6, 8 and 9. Other countries that are implementing smoke-free legislation could ensure that support is available to maximise any quitting potential and to help to bridge the gap between intention and behaviour for smokers in the population. Other countries have different support systems set up for smokers who wish to quit, so the increased support provided in England, along with other changes following the legislation can not be mapped exactly onto other countries. However lessons can be learned from the English experience, and if changes in smoking behaviour are expected, provisions should be in place to support this.

The English NHS SSSs provide a client focused service which, in most cases, is effective. However the NHS and SSSs perhaps need to address some of the structural issues raised within this thesis, highlighted in Chapters 4, 5 and 6. For

example, evaluating whether the four week successful quit targets are the best way to monitor SSSs. The four week targets were criticised by many staff as being an unfair way of monitoring their work, however there are benefits of targets aside from this purpose. For example, if services achieve the target set for them, then this can result in additional funding for the service. The PCTs therefore encourage the services to reach their targets, and one way of accomplishing this is to put more money back into the SSSs so that they are able to achieve the set target. This process, in part, may have contributed to the SSSs continued success in securing their place within the NHS, which has a history of traditionally focusing on cure, not prevention. Additionally, the NHS and SSSs could explore whether sufficient training and promotion opportunities are available to staff, and if not, why not. By addressing some of these issues, it may encourage more SSS staff to see smoking cessation as a longer term career and further enhance the quality of treatment provided.

A range of tobacco control policies which continue to monitor tobacco use and protect individuals from the dangers of tobacco have now been implemented in the UK. This effort by the government, as well as that by researchers and health care professionals must continue. This is of particular importance at the current time, with a new government and with the economic problems that England is currently facing. Keeping tobacco control on the political agenda will continue to save lives, save money for individuals and help to reduce the gap in health inequalities. Whilst people in England continue to put themselves and others in danger through smoking, there is still work to be done.

## **10.8 Future research**

This research has explored the implications of the English smoke-free legislation for NHS SSSs, as well as for smokers who were trying to quit. However, the findings discussed short term implications as only two years had passed since implementation when the data for the thesis was collected. It would be of interest to return to the same or similar research settings in five to ten years time and replicate the research, in particular Chapters 5, 6 and 8 to begin to understand the

longer term implications of the smoke-free legislation for NHS SSSs and their clients.

Additionally, it would be enlightening to re-visit the qualitative research and explore some of the issues in further detail. The main focus of the interviews, for the purpose of the PhD, was the smoke-free legislation. Many other areas of interest were discussed however. Constraints of the PhD meant that these could not be explored further, but this would be a beneficial area to return to. In particular, focus on staff and client attitudes towards the SSSs could be explored in more detail, which could result in changes and recommended improvements for the SSSs.

Following on from Chapter 9's findings that the effect of the smoke-free legislation was similar to the annual 'New Year effect', this could form a rationale for a large scale intervention. Case-control research could be conducted where one SSS introduced targeted advertising and promotion of their service in the run up to the New Year. Preparation for the New Year could be on a similarly large scale to the pre-legislation preparation. The change in service throughput following the New Year could be compared with a service that had not implemented the intervention. It could be hypothesised that the New Year intervention service would see more smokers setting a quit date. Thus more ambitious national campaigns, similar to those run around the time of the smoke-free legislation, could be annually implemented pre-New Year with the intention of increasing the numbers of quitters.

This research focused predominantly upon the SSSs and clients who were attending the SSSs. A development upon the current work could be to qualitatively explore the wider implications of smoke-free legislation for smokers who had not attended a SSS. If interviews followed a similar structure to the current research, comparisons could be drawn between service attendees and non-attendees, not only exploring similarities and differences between the impact of the legislation, but also in relation to wider tobacco control.

It would also be of interest to replicate key elements of this research in other countries that are planning to implement smoke-free legislation. Due to the UK's national healthcare system, it might not be possible to replicate the study in full

elsewhere. However, it could be adapted to suit the smoking cessation infrastructure in other countries. International comparisons with experiences of smoke-free legislation would be valuable in making further recommendations for policy and practice.





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## **Appendix 4.1:**

### **Questions for baseline national survey of English stop smoking service co-ordinators**

Implications of Smoke-free Legislation for Stop Smoking Services (SSSs)					
This survey asks you a series of questions about your service and preparations for smoke-free. Your response will be treated in confidence and neither you nor your service will be identified in any reporting of results from the study. Thank for taking the time to complete the survey.					
1. Email:					
2. Job title:					
3. How long have you been in your current job? <i>(Write number of years and months in box)</i>					
4. How much time do you spend each week running your SSS? <i>(Please tick appropriate box)</i>		<input type="checkbox"/> Full time (35-39 hours)	<input type="checkbox"/> Less than full time, more than half time (17-34 hours)	<input type="checkbox"/> Half time or less (0-16 hours)	
5. Please estimate what percentage of your time in a normal week would you spend on each of the following activities? <i>(Write percentages in appropriate boxes. Total should equal 100%)</i>		Providing training		%	
		Treating clients		%	
		Liaising with PCT / other Health Care Professionals		%	
		Administration / meetings		%	
		Recruiting new staff		%	
		Travel		%	
		Other activities <i>(please specify)</i> :		%	
6. Is running your service your sole responsibility or do you have other duties within the PCT? <i>(Please tick appropriate box)</i>			<input type="checkbox"/> Yes, it's my sole responsibility	<input type="checkbox"/> No, I have other responsibilities	
7. If 'No' please briefly describe these responsibilities:					
8. What is the name of your SSS?					
9. How many PCT's does your SSS provide a service to? <i>(Please tick appropriate box)</i>		<input type="checkbox"/> Less than 1 PCT	<input type="checkbox"/> 1 PCT	<input type="checkbox"/> 2 PCTs	<input type="checkbox"/> 3 or more PCTs
10. Please list all the PCT's that your SSS provides a service to:					
11. What	<input type="checkbox"/> Urban (city centre, central housing)	<input type="checkbox"/> Semi-urban (outskirts of city,	<input type="checkbox"/> Semi-rural (small town...)	<input type="checkbox"/> Rural (small villages, hamlets...)	

type of area does your SSS cover? (please tick all that apply)	area...)	suburbs...)		
12. How many staff are directly employed by your SSS? (please enter total number of staff in the box below each category). On average how many hours a week does this role entail? (please enter average for 1 member of staff). e.g. Core staff (specialist's) 4 staff 36 hours each				
Core staff (specialist's)	Advisors (sessional / part time)	Administrative staff	Other (please specify)	

13. On average how many clients per week would one advisor (sessional / part time) see? Please enter the most they would see and the least they would see:		Most they would see:		Least they would see:	
14. What type of smoking cessation interventions are delivered by your SSS? (Please tick all that apply)		<input type="checkbox"/> Structured individual advice / counselling			
		<input type="checkbox"/> Structured group advice / counselling			
		<input type="checkbox"/> Rolling group treatment			
		<input type="checkbox"/> Drop in individual advice / counselling			
		<input type="checkbox"/> Drop in group advice / counselling			
		<input type="checkbox"/> Relapse prevention groups			
		<input type="checkbox"/> Computer software			
		<input type="checkbox"/> Telephone advice / counselling			
		<input type="checkbox"/> SMS text messaging			
		<input type="checkbox"/> Self help materials (i.e. booklets)			
		<input type="checkbox"/> Peer led sessions (i.e. led by ex smokers)			
		<input type="checkbox"/> Acupuncture			
		<input type="checkbox"/> Hypnosis			
		<input type="checkbox"/> Other (please specify):			
15. If your SSS delivers one-to-one advice / counselling, on what basis are these individual sessions usually offered by your service:	How long are individual sessions? (Write time in box)		How many individual sessions constitute a complete course of treatment? (Write number in box)		
16. If your SSS delivers	How long are group		How many group sessions constitute a		

advice / counselling to groups, on what basis are these group sessions usually offered by your service:	sessions? (Write time in box)		complete course of treatment? (Write number in box)	
17. Roughly what percentage of patients attending you SSS receive individual / group support? (Write percentages in appropriate boxes. Total should equal 100%)	Patients receiving individual support	%	Patients receiving group support	%

18. Please indicate the kinds of venues used by smoking cessation advisors / counsellors to deliver smoking cessation interventions? (Please tick all that apply)	<input type="checkbox"/> General practices			
	<input type="checkbox"/> Pharmacies			
	<input type="checkbox"/> Other NHS primary care premises			
	<input type="checkbox"/> NHS hospital premises			
	<input type="checkbox"/> Workplaces - offices, pubs...			
	<input type="checkbox"/> Commercial / rented premises			
	<input type="checkbox"/> Voluntary or local authority premises			
	<input type="checkbox"/> Other (please specify):			
19. Does your service collect outcome data on clients quitting at 52 weeks?	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
20. Do you seek client's views about your service in any systematic way (eg. surveys)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
21. If 'Yes', what information do you collect and in what way do you collect this information?				
22. Do you expect there to be an increase in the number of clients contacting your SSS in the run up to the ban on smoking in enclosed public places?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Not sure	
23. If 'Yes' what percentage increase do you expect? (Please write % in box)			%	
24. How well do you think your SSS will be able to cope with an increase in client numbers <b>of</b> ? (Please tick one box for each %)				
	Cope very well	Cope adequately	Just about cope	Unable to cope
25%				
50%				
100%				
25. Has your SSS been allocated any increased funding from April 2007?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Not sure	
26. If 'Yes' how large is the increase? (Please write % in box)			%	
27. Have you planned any increase to staffing from April 2007? (Please tick all that apply)		<input type="checkbox"/> New core staff (specialist's)		
		<input type="checkbox"/> New advisors (sessional / part time)		



	<input type="checkbox"/> New administrative staff
	<input type="checkbox"/> Other (please specify):
28. Do you anticipate that you will have to: <i>(Please tick all that apply)</i>	<input type="checkbox"/> Introduce waiting lists
	<input type="checkbox"/> Increase waiting times
	<input type="checkbox"/> Decrease the duration or frequency of behavioural support

29. Are you planning on providing an increased number of training sessions leading up to the ban on smoking in enclosed public places?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Not sure
30. If 'Yes', will these sessions be targeted at particular professionals?		<input type="checkbox"/> Yes <input type="checkbox"/> No		
31. If 'Yes', which professionals? <i>(Please tick all that apply)</i>		<input type="checkbox"/> General practitioners <input type="checkbox"/> Practice nurses <input type="checkbox"/> Pharmacists <input type="checkbox"/> Dentists <input type="checkbox"/> Health visitors <input type="checkbox"/> Community midwives <input type="checkbox"/> Hospital midwives <input type="checkbox"/> Hospital consultants <input type="checkbox"/> Workplace advisors <input type="checkbox"/> Local authority staff <input type="checkbox"/> Other (please specify)		
32. Does your SSS provide a workplace service to local employers and workplaces?		<input type="checkbox"/> Yes <input type="checkbox"/> No		
33. Does your SSS employ someone whose main (70%+) responsibility is providing a workplace service?		<input type="checkbox"/> Yes <input type="checkbox"/> No		
34. What proportion of all of your clients last year were recruited from local employers or workplaces? (%)	Estimated proportion of clients		State if not recorded:	
35. Is your service planning any changes to its workplace activities in light of the forthcoming smoke free legislation?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Not sure
36. If yes, please describe these changes to				

workplace activities:			
<b>The Department of Health is launching a national publicity campaign in the run up to the ban on smoking in enclosed public places. We are interested in your local publicity plans for your SSS.</b>			
37. Are you planning any local publicity for your SSS?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Not sure
38. If Yes, when are you planning to introduce the new publicity?	<input type="checkbox"/> Already started (Feb 2007 or earlier)		
	<input type="checkbox"/> March 2007		
	<input type="checkbox"/> April 2007		
	<input type="checkbox"/> May 2007		
	<input type="checkbox"/> June 2007		
	<input type="checkbox"/> July 2007		
	<input type="checkbox"/> Post ban		
39. What form will this local publicity take?	<input type="checkbox"/> Posters		
	<input type="checkbox"/> Leaflets		
	<input type="checkbox"/> Local TV		
	<input type="checkbox"/> Local radio		
	<input type="checkbox"/> Other (please specify):		
40. Will this publicity explicitly mention the ban on smoking in enclosed public places?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<b>Many SSSs try to meet the needs of target groups, such as pregnant women and smokers from economically disadvantaged areas. We are interested in knowing whether your SSS is currently planning any additional activities to reach target groups.</b>			
41. Which groups do you <b>currently</b> target within your SSS? (Please tick all that apply)	<input type="checkbox"/> Homeless		
	<input type="checkbox"/> People who are housebound		
	<input type="checkbox"/> Pregnant women		
	<input type="checkbox"/> Ethnic minorities		
	<input type="checkbox"/> People with disabilities		
	<input type="checkbox"/> Young people		
	<input type="checkbox"/> People with smoking related illnesses		
	<input type="checkbox"/> Economically disadvantaged		
	<input type="checkbox"/> Hospital in-patients		
<input type="checkbox"/> People with mental health problems			

	<input type="checkbox"/> Other (please specify):
42. Please tell us specifically how your SSS is targeting these groups:	
43. Are you planning any <b>additional</b> activities to reach these groups in the period leading up to or immediately following the introduction of smoke free public places? If so, what will this involve?	
44. Please add anything else that you feel we need to know in relation to the implication of the smoke free legislation upon your SSS: <div style="text-align: right; margin-top: 10px;"> <b>Thank you for your support</b> </div>	

## Appendix 4.2:

### Spearman correlation matrix

Variable		Cope / not cope	Increase funding	Introduce lists	Increase lists	Alter behavioural support	Increase training	Introduce publicity
Cope / not cope	R	1	-0.066	-0.137	-0.077	-0.049	-0.090	0.195
	P		0.506	0.306	0.571	0.715	0.386	0.050
Increase funding	R	-0.066	1	-0.090	0.197	0.032	0.136	0.077
	P	0.506		0.486	0.128	0.807	0.165	0.421
Introduce lists	R	-0.137	-0.090	1	-0.193	-0.231	-0.147	-0.196
	P	0.306	0.486		0.137	0.073	0.290	0.140
Increase lists	R	-0.077	0.197	-0.193	1	-0.210	-0.097	-0.074
	P	0.571	0.128	0.137		0.104	0.490	0.582
Alter behavioural support	R	-0.049	0.032	-0.231	-0.210	1	0.068	0.167
	P	0.715	0.807	0.073	0.104		0.628	0.215
Increase training	R	-0.090	0.136	-0.147	-0.097	0.068	1	<b>0.271</b>
	P	0.386	0.165	0.290	0.490	0.628		<b>0.005</b>
Introduce publicity	R	0.195	0.077	-0.196	-0.074	0.167	<b>0.271</b>	1
	P	0.050	0.421	0.140	0.582	0.215	<b>0.005</b>	

## Appendix 4.3:

### Simple regression p values

Variable	P value
Increase funding	0.860
Introduce lists	0.409
Increase lists	0.686
Alter behavioural support	0.571
Increase training	0.559
Introduce publicity	0.293

## **Appendix 5.1:**

### **Questions for follow-up national survey of English stop smoking service co-ordinators**

## Cancer Research UK Survey 2008

You may recall completing a survey regarding your service and your preparation for the smoke-free legislation last spring. We are conducting a follow-up survey because we are interested in how you, as a stop smoking service co-ordinator / manager, feel that smoke-free has affected your service. We would be very grateful if you could spare 10 minutes of your time to complete this survey.

Email:	
Job title:	
What is the name of your SSS?	
Please list all the PCT's that your SSS provides a service to:	

1. **Please estimate** what percentage change your service experienced in the number of smokers setting a quit date in the run up to the smoke-free policy, during the first quarter of 2007-8 (i.e. April-June 2007), compared with the same quarter in 2006-7?  
(Please write % below; if no increase experienced write 0, if a decrease was experienced, place a minus sign before the %).

.....

2. **Please estimate** what percentage change your service experienced in the number of smokers setting a quit date in the period immediately following the smoke-free policy, during the second quarter of 2007-8 (i.e. July to Sept 2007) compared with the same quarter in 2006-7?  
(Please write % below; if no increase experienced write 0, if a decrease was experienced, place a minus sign before the %).

.....

3. How well do you feel your SSS has coped with the change in client numbers since the smoke-free policy?  
(Please tick one appropriate box)

Coped very well	<input type="checkbox"/>
Coped adequately	<input type="checkbox"/>
Just about coped	<input type="checkbox"/>
Unable to cope	<input type="checkbox"/>

4. Did your SSS receive an increase in funding from April 2007 compared with the year before?

Please write % in box; if no increase experienced write 0.	
Is this funding still available to you from April 2008?	Yes / No

5. Did you employ new staff from April 2007 in the lead up to the smoke-free policy?

(Please tick all that apply)

	Employed since April 2007:	Are these still employed by your SSS now?
New core staff (specialists)	Yes / No	Yes / No
New advisors (sessional / part time)	Yes / No	Yes / No
New administrative staff	Yes / No	Yes / No
Other (please specify):	Yes / No	Yes / No

6. In the period leading up to and immediately following the smoke-free policy, did you have to do any of the following to cope with increased client numbers?

(Please tick all that apply)

	Prior to and immediately following the smoke-free policy:	Are these strategies still in place now?
Introduce waiting lists	Yes / No	Yes / No
Increase waiting times	Yes / No	Yes / No
Decrease the duration or frequency of behavioural support	Yes / No	Yes / No



7. Did you deliver increased training sessions in smoking cessation to any of the following types of professionals in the period leading up to or immediately following the smoke-free policy?

(Please tick all that apply)

	Brief advice training (providing advice lasting for up to 5 minutes)	Trained as Community Advisor (providing full one-to- one or group support)
General practitioners		
Pharmacists		
Dentists		
Health visitors		
Community midwives		
Hospital midwives		
Hospital consultants		
Workplace advisors		
Local authority staff		
Other (please specify)		

8. Have your workplace activities changed since the introduction of the smoke-free policy?

Yes ☐  
No ☐

8.a. If yes, how have your workplaces activities changed?

9. In your view, did the ban on smoking in public places help raise the profile of your service?

Yes ☐

No ☐

9.a. If yes, has this profile been maintained?

Yes ☐

No ☐

10. If you could go back to spring 2007, when you were preparing for the smoke-free policy, what, if anything, would you do differently?

11. Please add anything else that you feel we need to know in relation to the implications of the smoke-free policy upon your SSS.

Thank you for your time, if you have any questions please contact Lucy Hackshaw  
- L.E.Hackshaw@bath.ac.uk. The results of this survey will be posted on the  
SCSRN website.

## **Appendix 5.2:**

### **Invitation letter to co-ordinators**

Andy McEwen  
Smoking Cessation Services Research Network (SCSRN)  
(Insert address)

(Insert phone number)  
(Insert email address)

(Insert date)

Dear (Insert *name*)

**1<sup>st</sup> Annual Smoking Cessation Practitioner (SCP) Survey**

I am writing to ask you to take part in the **first** of a series of **annual surveys** that aims to improve our understanding of the role of smoking cessation practitioners in the UK.

To take part in this important development for the field simply type:

**[www.scsrn.org/survey08](http://www.scsrn.org/survey08)**

into your browser to access an easy to complete online survey. We would be grateful if you could also ask **as many of your staff as possible** (core staff and community advisors) to complete the survey as well – I have enclosed some flyers for you to give them to encourage them to participate.

Everyone who completes the survey will be entered into a draw for a **free delegate place** (including travel and accommodation) at the **UK National Smoking Cessation Conference** (UKNSCC) in Birmingham on 30<sup>th</sup> June and 1<sup>st</sup> July 2008!

As a **coordinator or manager** of a service in England we would also be grateful if you could complete the second **Cancer Research UK survey of Stop Smoking Service Coordinators and Managers**.

It is a follow-up to the survey carried out in 2007. It examines how **smokefree legislation** in England has affected services. This study is being carried out by Bath University. It is **extremely important** that we gain as comprehensive a picture as possible from services across England and therefore we would be grateful if you could complete the short additional questionnaire. Simply type the following into your browser to access the survey:  
**[www.scsrn.org/CRUKsurvey](http://www.scsrn.org/CRUKsurvey)**

Please do not hesitate to contact me if you have any questions or suggestions about either of these important surveys, thanks for your help,

Yours sincerely

Andy McEwen, PhD  
Director, SCSRN

**Make your voice count by taking part in the first ever survey of smoking cessation practitioners!**

## Appendix 5.3:

### Spearman correlation matrix

Variables		Pre ban increase	Post ban increase	Funding increase	New core staff	New advisors	New Admin	Increase waiting times	Intro waiting lists	Work place changes	Increase profile
Pre ban increase	r	1	<b>0.500</b>	0.210	<b>0.262</b>	0.218	0.108	-0.058	0.101	0.194	0.083
	p		<b>0.000</b>	0.081	<b>0.020</b>	0.064	0.348	0.624	0.394	0.088	0.468
Post ban increase	r	<b>0.500</b>	1	0.096	0.092	0.139	-0.088	-0.032	0.185	0.153	<b>0.265</b>
	p	<b>0.000</b>		0.433	0.426	0.243	0.449	0.792	0.117	0.188	<b>0.021</b>
Funding increase	r	0.210	0.096	1	<b>0.382</b>	<b>0.369</b>	0.145	0.081	-0.038	0.207	0.144
	p	0.081	0.433		<b>0.000</b>	<b>0.002</b>	0.238	0.523	0.761	0.090	0.238
New core staff	r	<b>0.262</b>	0.092	<b>0.382</b>	1	<b>0.454</b>	0.186	-0.054	-0.102	0.212	0.095
	p	<b>0.020</b>	0.426	<b>0.000</b>		<b>0.000</b>	0.096	0.641	0.375	0.062	0.405
New advisors	r	0.218	0.139	<b>0.369</b>	<b>0.454</b>	1	0.127	-0.055	0.091	0.143	<b>0.285</b>
	p	0.064	0.243	<b>0.002</b>	<b>0.000</b>		0.272	0.642	0.442	0.226	<b>0.014</b>
New admin	r	0.108	-0.088	0.145	0.186	0.127	1	0.068	0.202	<b>0.266</b>	0.076
	p	0.348	0.449	0.238	0.096	0.272		0.555	0.076	<b>0.020</b>	0.506
Increase waiting times	r	-0.058	-0.032	0.081	-0.054	-0.055	0.068	1	<b>0.413</b>	0.137	0.131
	p	0.624	0.792	0.523	0.641	0.642	0.555		<b>0.000</b>	0.244	0.267
Introduce waiting lists	r	0.101	0.185	-0.038	-0.102	0.901	0.202	<b>0.413</b>	1	0.012	0.151
	p	0.394	0.117	0.761	0.375	0.442	0.076	<b>0.000</b>		0.919	0.197
Work place changes	r	0.194	0.153	0.207	0.212	0.143	<b>0.266</b>	0.137	0.012	1	0.089
	p	0.088	0.188	0.090	0.062	0.226	<b>0.020</b>	0.244	0.919		0.437
Increase profile	r	0.083	<b>0.265</b>	0.144	0.095	<b>0.285</b>	0.076	0.131	0.151	0.089	1
	p	0.468	<b>0.021</b>	0.238	0.405	<b>0.014</b>	0.506	0.267	0.197	0.437	

## **Appendix 6.1:**

### **Interview content guide - stop smoking service staff**

## **Interview schedule**

### **General questions about yourself and your stop smoking service**

- \* What is your job title?
- \* How long have you been in this post?
- \* What would you say your role is within the SSS? How would you describe your role to a lay person?
- \* You have been working here for \_\_\_\_ years. During that time, what would you say is the most significant change that's occurred within the service?
- \* Do you see clients? Roughly how many would you see in an average week?
- \* Could you describe a typical client to me? Age, SES, gender, reason for quitting, attitude towards the service
- \* What would you say your clients are expecting from the service?

### **Smoke-free legislation**

- \* Think back to the time before the smoke-free legislation was introduced. What was your opinion of it then?
  - Has it changed?
- \* Do you think smoke-free has made more people aware of your SSS?
- \* Do you feel smoke-free has impacted upon the type of client that accesses the service?
- \* Do you feel smoke-free has impacted upon the number of smokers accessing the service?
- \* Is it what you expected?
- \* Do you feel that smoker's motivation to quit has changed since smoke-free?
- \* Do you think that smoke-free has made it easier or harder for smokers to stop?
- \* Do you think your role has altered since smoke-free?
- \* Do you feel the level of pressure upon you and your service has changed since smoke-free?
  - How?
- \* Do you have any other feelings about smoke-free?

### **Your career and your stop smoking service**

- \* Tell me about training opportunities available to you within your SSS
- \* Tell me about promotion opportunities available to you within your SSS
- \* Do you see yourself continuing your career within smoking cessation? Do you feel your career will move in other directions?

### **Smoking cessation and your stop smoking service**

- \* If you were in charge and held the purse strings for SSS, what would you do?
- \* What improvements do you feel can be done either by central government or locally to improve the quitting experience for your clients?
- \* What improvements do you feel could be done by either central government or locally to improve the experience of working within a SSS for the advisors / co-ordinators?
- \* What do you feel is the biggest challenge facing SSSs?
- \* How would you suggest overcoming this?
- \* Is there anything else you wish to add to our discussion today?



## **Appendix 6.2:**

### **Stop smoking service staff consent form**

Participant Number .....



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## English smoke-free legislation & smoking cessation

### Participant consent form

I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions

☐ (please tick)

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without my medical care or legal rights being affected

☐ (please tick)

I understand that my responses are confidential, that it is only the research team that will be aware of my identity, and any identifiable factors will be removed from my responses before publication of results

☐ (please tick)

I agree to take part in the above study

☐ (please tick)

Name of participant..... Signature..... Date.....

Name of researcher..... Signature..... Date.....

Name and position of person taking consent (if different from researcher)

..... Signature..... Date.....

Contact details:

Lucy Hackshaw – (Insert contact details)

Dr Linda Bauld – (Insert contact details)

## **Appendix 6.3:**

### **Stop smoking service staff information sheet**



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## **English smoke-free legislation & smoking cessation**

### **Participant information sheet**

You have been invited to take part in a piece of research. Please read the information below carefully before deciding whether you wish to participate.

In July last year the smoking ban was introduced in England. The smoking ban had an impact upon NHS stop smoking services, as well as affecting many current smokers and recent ex-smokers. As a member of the stop smoking service team, we are very interested in your opinions in relation to the smoking ban and how you feel it has affected your clients and NHS stop smoking services.

Our research, based at the University of Bath and funded by Cancer Research UK, aims to explore the views and opinions of stop smoking co-ordinators and advisors, their attitudes towards the smoking ban and its impact upon smokers and the stop smoking services.

We invite you to spend 15-30 minutes with Lucy Hackshaw, one of our researchers, to discuss smoking cessation, the smoking ban and the stop smoking services. Your participation is voluntary and you are free to withdraw at any time. Your responses are confidential, only the research team will be aware of your identity and any identifiable factors will be removed from your responses before any results are published. Your interview will be sound recorded.

We hope you will be involved with this research. Your contribution is valuable and will benefit smokers and stop smoking services in the future.

Thank you,

Lucy Hackshaw\*, Dr Linda Bauld<sup>†</sup> and Dr Andy McEwen<sup>‡</sup>

(\*research health psychologist – University of Bath, <sup>†</sup>Reader in Social Policy – University of Bath,

<sup>‡</sup>Senior Research Nurse – University College London)

Contact details:

Lucy Hackshaw – (Insert contact details)

Dr Linda Bauld – (Insert contact details)

## **Appendix 8.1:**

### **Interview content guide - stop smoking service clients**

## **Interview schedule**

### **General questions about your smoking**

- \* When did you stop smoking?
- \* Have you stopped completely?
- \* How does it feel for you at the moment?
- \* Do you feel like a smoker still, although one who is quitting? Or would you describe yourself as an ex-smoker or non-smoker?
- \* Do you think that this might change?
- \* When did you start smoking?
- \* What are your experiences of stopping smoking previously?
- \* Had you been to the SSS before?
- \* What were your reasons for stopping smoking this time?

### **NHS stop smoking services**

- \* Did you know what to expect the first time that you attended the service?
- \* What did you expect?
- \* How did things differ from your expectations?
- \* Can you sum up your experience of the SSS in a sentence?
- \* What improvements do you feel could be made to the service to make the quitting process easier for you?

### **Smoke-free legislation**

- \* Did you think that the ban on smoking in public places was a good idea when it was introduced in 2007?
- \* What do you think of it now, over 12 months on?
- \* Did the ban affect how much you smoked, how often and where?
- \* Has the ban on smoking in public places influenced your decision to quit smoking this time? How exactly?

- \* Do you think that non-smokers think differently about smokers because of the ban on smoking in public places? How?
- \* Did you feel uncomfortable being a smoker post-ban?
- \* Did you do anything to reduce this discomfort?
- \* If the smoke-free legislation was reversed, would you return to smoking?

### **General smoking questions**

- \* What did you find most difficult about giving up smoking this time or during previous quit attempts?
  - What made it difficult?
  - How did you cope with this?
- \* Were there any aspects of giving up smoking which you found to be easier than you had expected?
  - What made it easier?
- \* If smoking was not harmful, how would it alter your attitude towards it?
  - Would you return to it?
- \* Does smoking hold any attraction to you currently?
  - Explain further?
  - Why is stopping smoking more important to you now than these attractions?
- \* What else do you think the government could do to help smokers to stop?  
(Allow them to make suggestions & offer some of those below for discussion)
  - Making smoking illegal
  - Stopping 10 packs
  - Increasing legal age further
  - Graphical pictures on pack
  - More advertising and campaigns of the dangers of second hand smoke \*
  - Increasing prices of cigarettes and tobacco \*
  - Ending sale of tobacco products from vending machines \*
  - Ending all displays of tobacco products at the point of sale \*
  - Introducing smoke-free car legislation \*
  - Free NRT to all \*

(\* Taken from DH consultation on the future of tobacco control)
- \* Do you have any other comments relating to anything we have discussed that you would like to add?

### **Demographic Questions**

- \* I am :      Male   ☐      Female   ☐
- \* My age group is:
- |                   |                          |             |                          |
|-------------------|--------------------------|-------------|--------------------------|
| 18 – 21           | <input type="checkbox"/> | 41 – 50     | <input type="checkbox"/> |
| 22 – 25           | <input type="checkbox"/> | 51 – 60     | <input type="checkbox"/> |
| 26 – 30           | <input type="checkbox"/> | 61 – 70     | <input type="checkbox"/> |
| 31 – 40           | <input type="checkbox"/> | 71 or older | <input type="checkbox"/> |
| Prefer not to say | <input type="checkbox"/> |             |                          |
- \* My current marital status is:
- |                             |                          |
|-----------------------------|--------------------------|
| Single / never been married | <input type="checkbox"/> |
| Living with partner         | <input type="checkbox"/> |
| Married                     | <input type="checkbox"/> |
| Separated                   | <input type="checkbox"/> |
| Divorced                    | <input type="checkbox"/> |
| Widowed                     | <input type="checkbox"/> |
| Prefer not to say           | <input type="checkbox"/> |
- \* My highest level of education is:
- |                              |                          |
|------------------------------|--------------------------|
| Less than secondary school   | <input type="checkbox"/> |
| GCSE or equivalent           | <input type="checkbox"/> |
| GNVQ, A Levels or equivalent | <input type="checkbox"/> |
| Undergraduate degree         | <input type="checkbox"/> |
| Masters degree or above      | <input type="checkbox"/> |
| Prefer not to say            | <input type="checkbox"/> |
- \* My current employment status is:
- |                            |                          |
|----------------------------|--------------------------|
| Employed for wages         | <input type="checkbox"/> |
| Self employed              | <input type="checkbox"/> |
| Out of work                | <input type="checkbox"/> |
| House wife / house husband | <input type="checkbox"/> |
| Student                    | <input type="checkbox"/> |
| Retired                    | <input type="checkbox"/> |
| Unable to work             | <input type="checkbox"/> |
| Prefer not to say          | <input type="checkbox"/> |

(Adapted from the General Household Survey, 2005)



## **Appendix 8.2:**

### **Stop smoking service client consent form**



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CANCER RESEARCH UK



Patient Identification Number for study:

## CONSENT FORM

**Title of Project: English smoke-free legislation & smoking cessation**

Name of Researcher: Lucy Hackshaw

**Please initial box**

I confirm that I have read and understand the information sheet dated 01/06/2008 (Version 1) for the above study and have had the opportunity to ask questions	
I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.	
I agree to take part in the above study.	
I understand the interview will be audio taped and that the tapes will be destroyed as soon as transcribed and only non-identifiable information will be used in the transcription.	

\_\_\_\_\_  
Name of Patient

\_\_\_\_\_  
\_\_\_\_\_  
Date

Signature

\_\_\_\_\_  
Name of Person taking consent  
(If different from researcher)

\_\_\_\_\_  
Date

Signature

\_\_\_\_\_  
Researcher

\_\_\_\_\_  
Signature

Date

1 for patient; 1 for researcher

## **Appendix 8.3:**

### **Stop smoking service clients information sheet**



## **English smoke-free legislation & smoking cessation**

### **Participant information sheet** (01/09/2008 – version 2)

You have been invited to take part in a piece of research. Please read the information below carefully before deciding whether you wish to participate.

#### **What is the purpose of the study and why have I been chosen?**

In July last year the smoking ban was introduced in England. The smoking ban had an impact upon NHS stop smoking services, as well as affecting many current smokers and recent ex-smokers. We aim to explore the views and opinions of ex and current smokers, and their attitudes towards smoking cessation and the smoking ban. As a recently ex-smoker or smoker in the process of quitting, we are very interested in your opinions in relation to the smoking ban, NHS stop smoking services and smoking cessation in general.

#### **Who is organising and funding the research?**

Our research is based at the University of Bath and funded by Cancer Research UK.

#### **What will happen to me if I take part?**

We invite you to spend 15-30 minutes with Lucy Hackshaw, one of our researchers, to discuss smoking cessation and the smoking ban. Your interview will be conducted following your regular meeting with a stop smoking advisor and will be sound recorded.

#### **Do I have to take part and what will happen if I don't want to carry on with the study?**

Your participation is voluntary and you are free to withdraw at any time.

#### **Are there any disadvantages or risks of taking part?**

We do not anticipate there being any disadvantages or risks of taking part.

#### **Will my taking part in the study be kept confidential?**

Your responses are confidential, only the research team will be aware of your identity and any identifiable factors will be removed from your responses.

#### **What will happen to the results of the research study?**

Data collected will form part of a PhD thesis, and results may be published in journal articles and at conference.

#### **Who has reviewed the study?**

The study was reviewed by the Cornwall and Plymouth Research Ethics Committee.

Before participation commences you will be given a copy of the information sheet and a signed consent form to keep. We hope you will be involved with this research. Your contribution is valuable and will benefit smokers and stop smoking services in the future.

**Thank you.**

Lucy Hackshaw\*, Dr Linda Bauld" and Dr Andy McEwen^

(\*research health psychologist – University of Bath, "Reader in Social Policy – University of Bath,

^Senior Research Nurse – University College London)

Contact details:

Lucy Hackshaw – (Insert contact details)

Dr Linda Bauld – (Insert contact details)

## **Appendix 9.2:**

### **Question outline for face to face survey**

Which of the following best applies to you?

- I smoke cigarettes (including hand-rolled) every day
- I smoke cigarettes (including hand-rolled), but not every day
- I do not smoke cigarettes at all, but I do smoke tobacco of some kind (eg. pipe or cigar)
- I have stopped smoking completely in the last year
- I stopped smoking completely more than a year ago
- I have never been a smoker (ie. smoked for a year or more)
- Don't Know

How many serious attempts to stop smoking have you made in the last 12 months? By serious attempt I mean you decided that you would try to make sure you never smoked again. Please include any attempt that you are currently making and please include any successful attempt made within the last year.

Numeric Range  
Don't Know Y

How long ago did your most recent serious quit attempt start? By most recent, we mean the last time you tried to quit.

- In the last week
- More than a week and up to a month
- More than 1 month and up to 2 months
- More than 2 months and up to 3 months
- More than 3 months and up to 6 months
- More than 6 months and up to a year
- Don't Know/Can't remember

Are you aware of the forthcoming smoke-free legislation?

Are you planning any quit attempts in response to the forthcoming smoke-free legislation?

Have you made a quit attempt that had been prompted by the smoke-free legislation?

## **Appendix 9.1:**

**Hackshaw, L. E., McEwen, A., West, R. and Bauld, L., (2010). Quit attempts in response to smoke-free legislation in England, *Tobacco Control*, 19, pp.160-164**